ARCHITECTURE

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Lithography in Architectural Rendering

By Rayne Adams

We are all so accustomed to graphic reproduction in its manifold forms that few of us stop to consider how recent is the larger part of the developments of the art. We all take graphic reproduction for granted—it is so familiar a phenomenon that, as it develops toward newer complications, we get to know less and less about it.

Tempori parendum. But the pace was slow in the age when the Emperor Theodosius insisted that "we must go with the times." Two hundred years ago the horse-drawn coach was a favorite means of transportation for travellers. To-day we use the railroad. To-morrow we shall—who knows?—use the airplane. Whereas the traveller of Voltaire's day could, at a pinch, have driven the coach, the traveller of to-day could hardly be expected to act as locomotive engineer. Throughout our whole modern life we are willing and unconscious slaves to machines and contrivances which serve our definite purposes and concerning the secrets of which we know next to nothing. We are pretty much in the position of the African savage who knows how to shoot a gun but who doesn't understand what makes the bullet go.

Perhaps we are justified in not knowing; one has time for so few things. Yet there are subjects little known to the architect and the architectural draftsman which are relevant to their professional work—and the variety of modern graphic reproduction is one of these subjects—just as it is justifiably considered relevant to the interest which all of us have in all the graphic arts themselves.

Fundamentally there are *two** distinct methods employed in all graphic reproduction work. The first method is that exemplified in the use of raised type. The block from which the print is made may be so treated that the type design is raised or depressed. For example, the old-fashioned woodcut was made so that the design was raised, the raised lines acting as the printing surface. On the other hand, the copperplate etching is made so that the lines of the design are incised, and the ink, with which these depressions are properly filled, is transferred to the paper by pressing the paper into the depressions. Shorn of all complications—and technically there are many—such is the complete description of one of the two methods of graphic reproduction.

The *other* method is that which is known (to the erudite) as "planography." Lithographs—among other types of prints—are made according to this general method. In this method or process the printed impression is made from a *flat* surface by virtue of the fact that the printing block has been treated in such manner that certain parts of the surface will receive ink and transmit it, whereas the remainder of the surface will not. It is this second method, so simple in its general statement, in which we are specially interested here, because it is a method little understood or appreciated by many whose interest in prints and drawings is wide and genuine.

The first of these methods is exceedingly old and it has given us such miracles as the prints from wood blocks which the Chinese had the genius to make, and it has given us other miracles of a very different but no less enchanting quality, such as the etchings of Piranesi.

The modern "line-cut" and "half-tone," by

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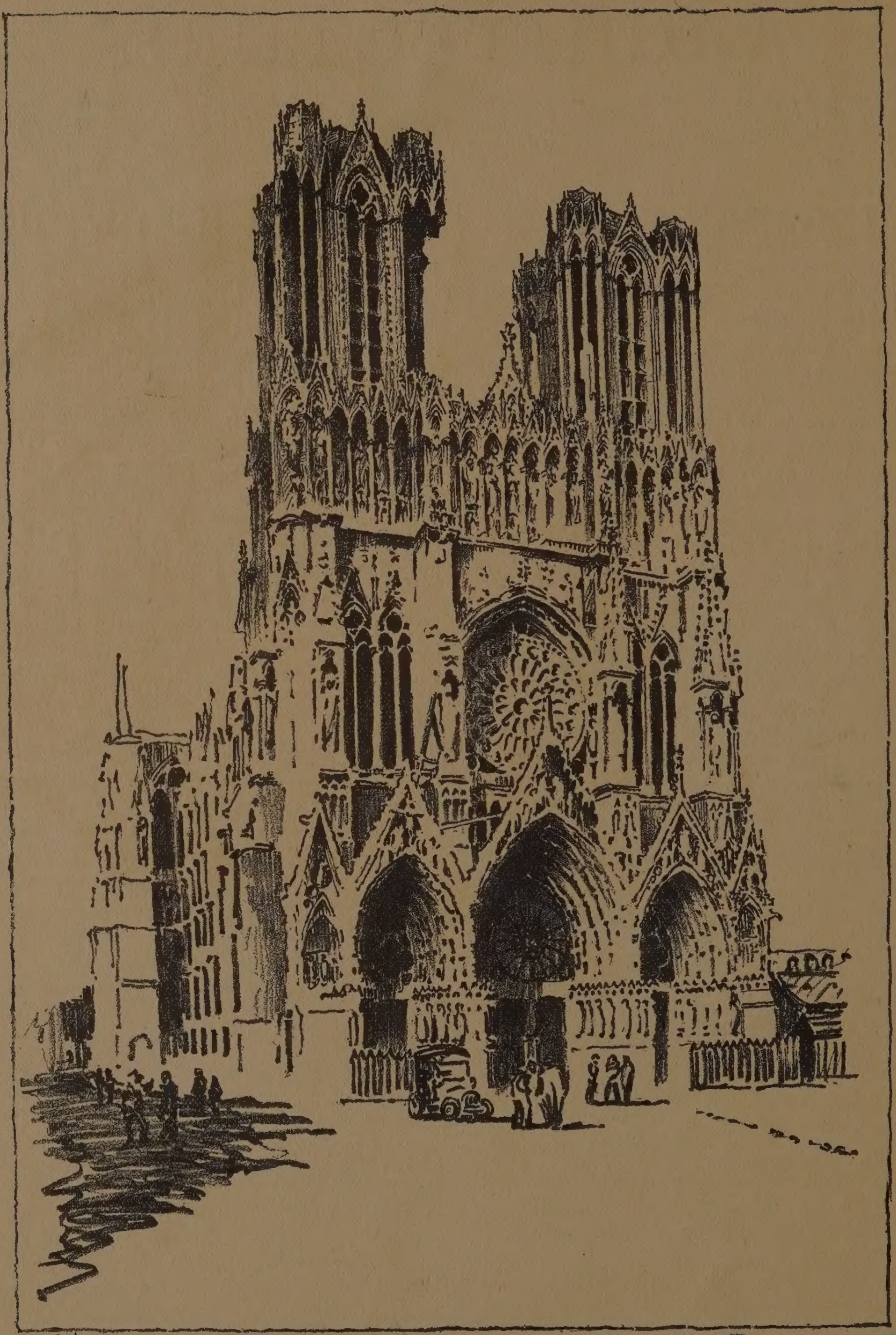
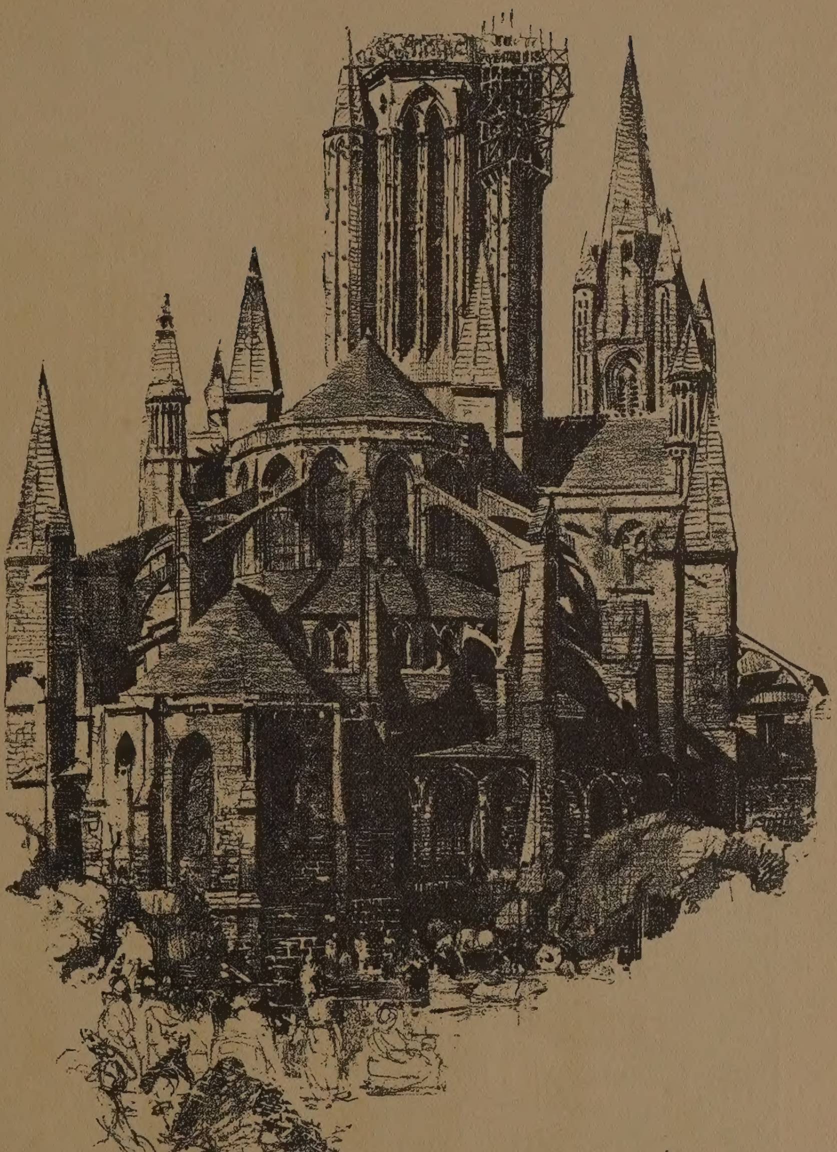
*Among some professional lithographers it is customary to consider that there are *three* methods of printing, namely: "relief" (*i. e.*, the woodcut); "intaglio" (*i. e.*, the copper-plate etching) and "flat" (*i. e.*, lithography). The woodcut, copperplate etching, and lithograph are chosen of course as typical of each method. I have considered that logically there are only *two* methods: "raised" and "flat," because the "relief" and "intaglio" methods are at bottom the same thing; only in one case the print is made from ridges and in the other from depressions. The essential difference in the two methods lies in the fact that in one case the plate is *flat* and in the other it is not.



18/20

J. R. Rowe

Cathedral of Rheims, from the lithograph
by J. Richard Rowe



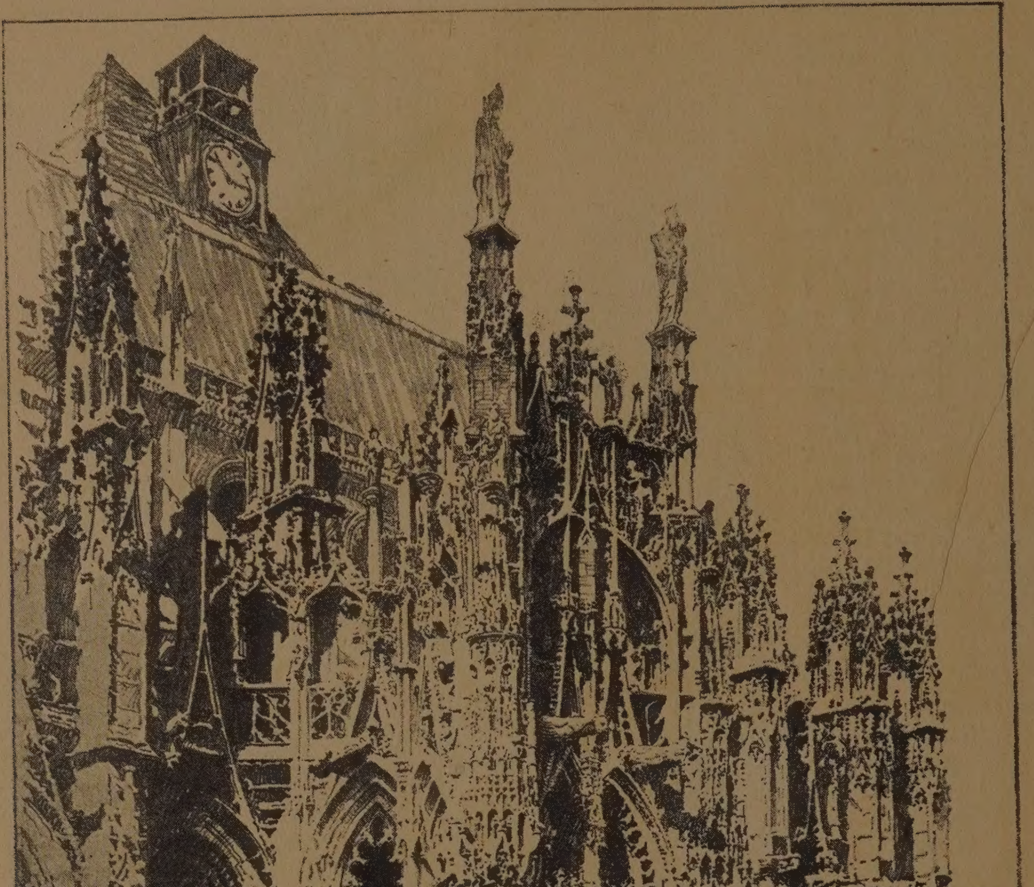
Church of Coutances, France, from the lithograph by Edward Mathews

which the works of other and lesser masters are most commonly made known to us are only variations of the first, or "raised," method of printing. The use of photography, so widely applied in photo-engraving, is simply an ingenious short cut, bringing with it certain results unobtainable otherwise, applied to a very old art. In the line-cut as in the half-tone, the metallic surfaces are first treated so that certain portions are rendered immune to the action of acid; the plate is then etched with acid so that depressions are produced in certain places, leaving the design raised and thus capable of transmitting ink to paper. And similarly with the so-called "steel engraving" and with the illustrious woodcut—the first happily in the ranks of things déclassé, the second unhappily so—both are examples of prints made by this "raised" method of graphic reproduction.

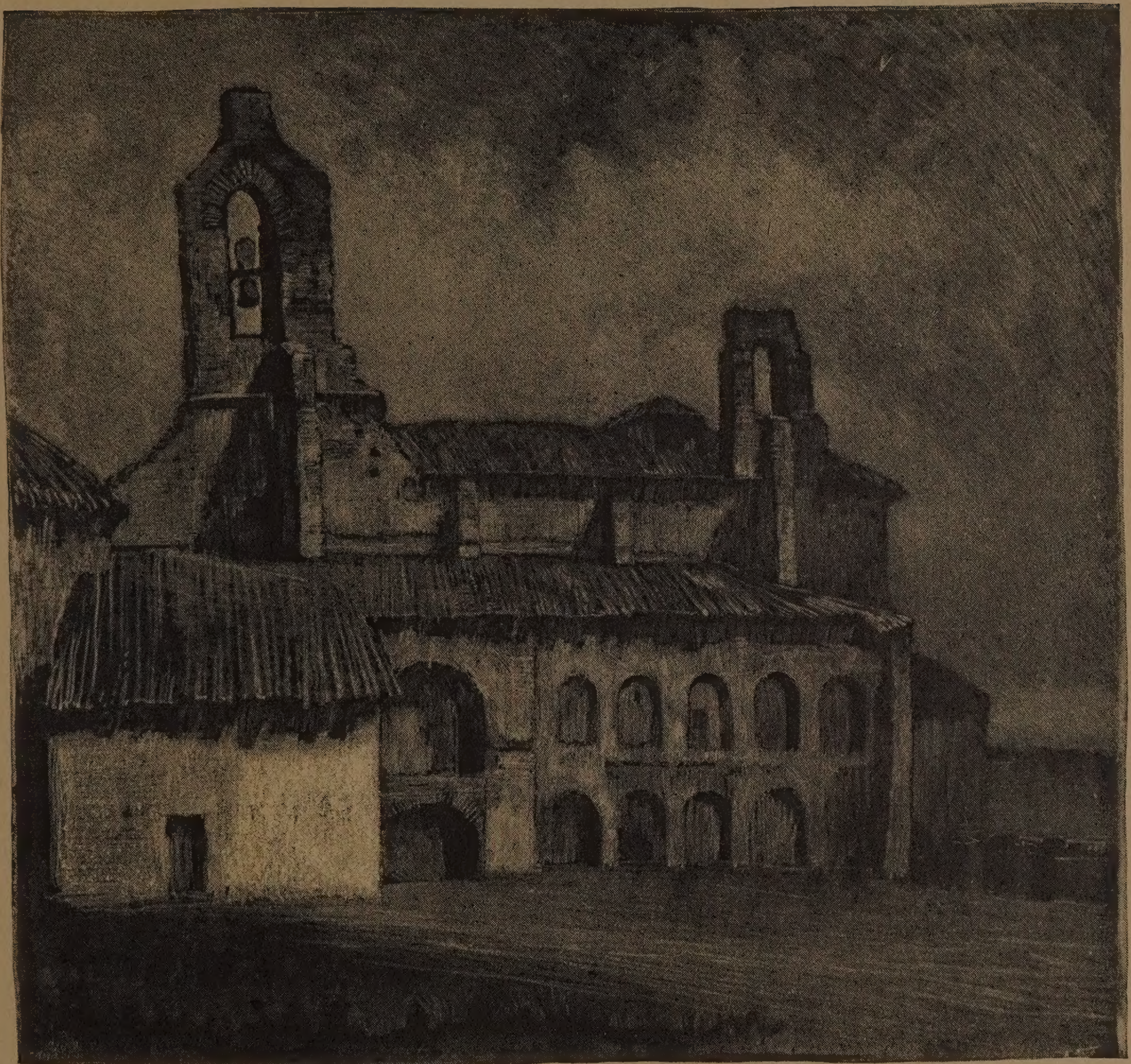
Up to the year 1800 the raised-block method of printing was the only one known and, prior to the advent of photography, reproduction was "autographic" to this extent: the reproduction was invariably the same size as the block or plate from which it was printed.

At the close of the eighteenth century a new method was born, a method which was almost completely autographic. The invention of lithography has a distinct place in the romance of printing. A student of music, Alois Senefelder, of Prague in Bohemia, made the chance discovery that a grease mark on the polished surface of a certain variety of limestone would retain and transfer ink to paper, whereas the remaining portion of the surface would not.

A simple enough discovery, yet one which required for its consummation the long ages in which the arts of Egypt, of Greece, and of later Italy flourished and withered. Some twenty thousand years before the days of Senefelder the cave men of the Pyrenees had drawn their pictures of bison on the limestone walls of their



A church portal in France, from the lithograph by J. Richard Rowe

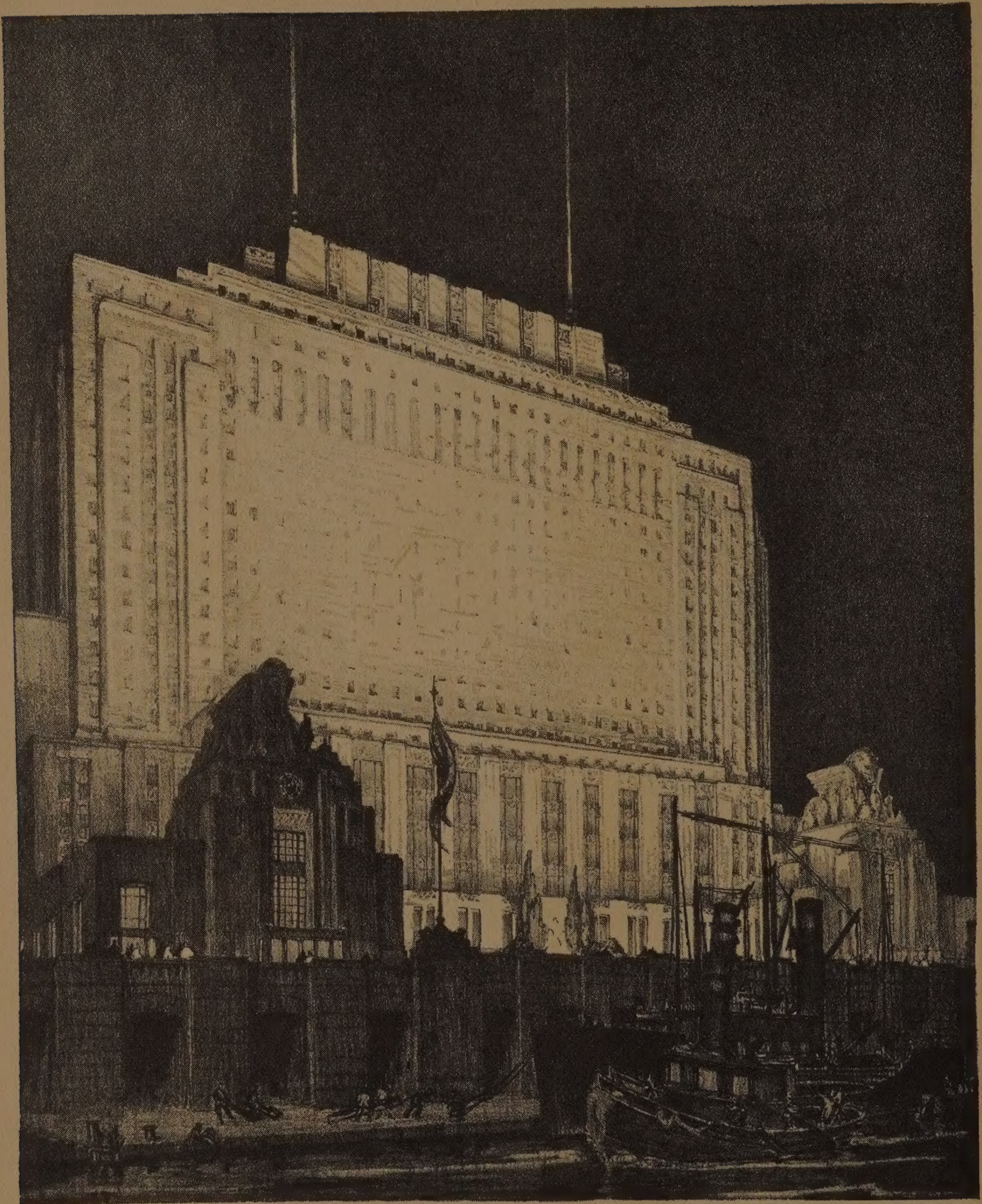


A village church in Spain, from the lithograph by Howard Leigh

caves. In the arts—as in the sciences—progress is sometimes laggard.

The making of a lithograph is based on certain properties and reactions of limestone, grease, and acids. Senefelder's discovery amounted to this: (1) lithographic stone has an affinity for grease; (2) if grease is placed on the surface of the stone in a proper manner it will retain ink and transfer it, but it will repulse water; (3) lithographic stone is readily acted on by a dilute solution of gum arabic; (4) by the application of this solution the portions of the stone not covered with grease are covered with a thin but insoluble film which prevents these portions of the surface from taking on grease during the operation of printing.

Such is, most untechnically, the story of lithography. It has been claimed that lithography is only one branch of a much larger, more generalized art, that of "planography," because it exemplifies one process out of many based on the identical principle: that a flat printing surface may be treated so as to be capable of retaining ink only on certain portions. For example, the gelatine process, used commonly in printing post-cards (European cards, not American, God rest us!) is planography; the printing from rubber or composition forms is in the same

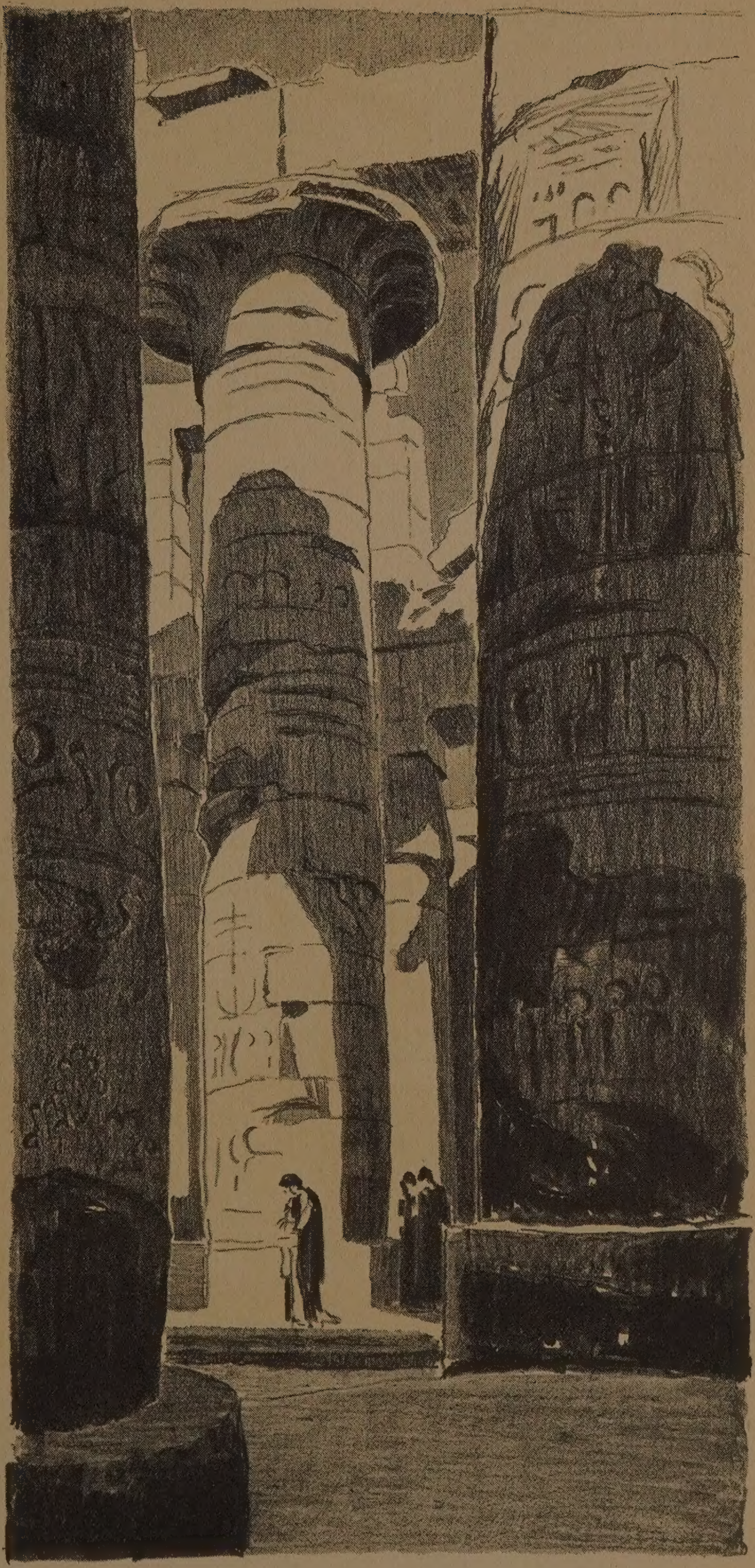


Preliminary perspective, Daily News Building, Chicago; Holabird & Root, Architects; from the lithograph by Donald Douglass group; in all these varying and intricate methods we have merely developments which have flowed reasonably from Senefelder's discovery.

The planographic method of reproduction (or, for the purpose of this article, the *lithographic* method) has one distinguishing quality which marks it distinctly from the copperplate etching method: it is, to a high degree, autographic. Drawing on the lithographic stone is like drawing on paper: a black value on the paper is a black value on the stone. On the copperplate a black value (or rather, that which is to be a black value in the print) is a shining patch or line of bright copper. Of course no method by which the print is made directly from the stone or plate can be completely autographic, since that which is, so to speak, right-handed on the plate must appear left-handed in the print. In etching, or in the making of woodcuts, or in lithography, we are always to a certain extent in "looking-glass land."

One of the outstanding merits of lithography is shown in the series of lithographs reproduced here. Its adaptability to a wide range of technic is apparent. The drawings, to the eye of the interested, tell their own story, but it is worth observing how varied are the effects which may be obtained by the use of this sympathetic medium.

For the architect it is of interest to note that renderings of his designs by lithography offer distinct advan-



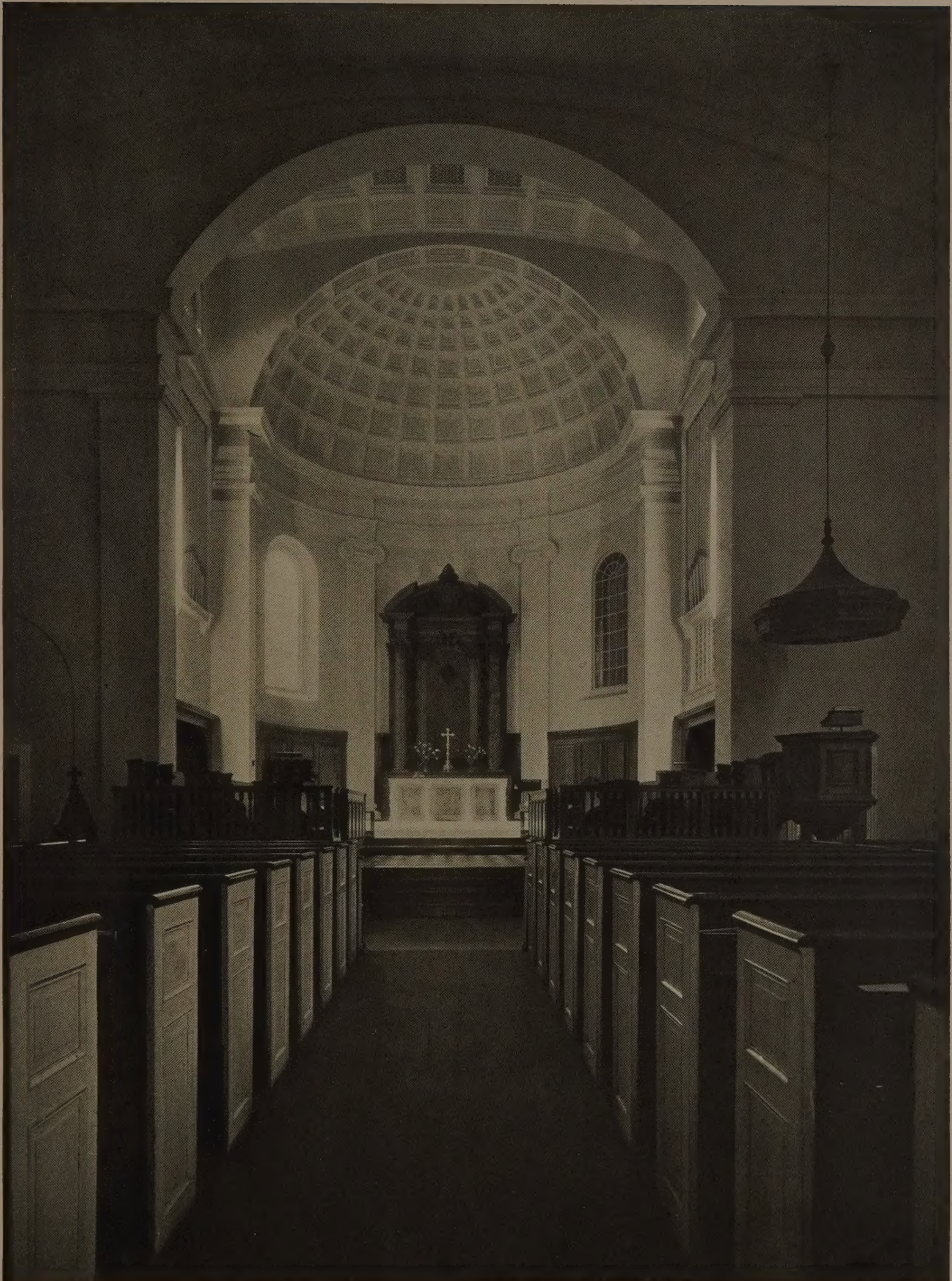
Temple of Amon, Karnak, Egypt, from the lithograph by Earle B. McKinney tages. With pencil and wash drawings on paper there can be but one "original"—that is, one original drawing; with the lithographic drawing—as with the copperplate etching or dry-point—there may be many "originals" or prints. And these prints have an autographic quality which is not given by the ordinary line-cut or half-tone reproduction. If the architect wishes multiple copies of the drawing for distribution the lithographic method will yield him what he wishes. He may obtain such prints in reasonable quantity at less expense than he would obtain similar prints by having his design reproduced by copperplate etching or dry-point. While it is always hazardous to touch on the economic aspect in matters such as these, since so much depends on the particular conditions which upset our best attempts at generalizatiom, it may be put forward that a rendering made on the stone should cost less than a drawing of similar character and quality made, in the customary manner, with pen and ink or wash, on paper.

Of course the stone itself is heavy and cumbersome, but the ingenuity of the workers in the field of lithography has, to a certain extent, overcome some of the difficulties which follow naturally in the train of this defect. The zinc plate used in lithography is a thin sheet of zinc which has been surfaced in a peculiar manner so that, when it is worked upon by the lithographic pencil, it can be printed from with very much the same results as are yielded by the lithographic stone. These zinc plates may be obtained readily from engravers' supply houses, and while the sum total of the virtues of the zinc plate is not equal to that of the stone, it may nevertheless be recommended as being capable of giving excellent results. One outstanding defect of the zinc plate compared to the stone is that its color—a dull metallic bluish gray—is not particularly sympathetic to the draftsman. Nor is its surface so enticing as the surface of the stone. But for the maker of lithographic drawings located remotely from the larger centres of population it will be found most advantageous to use the zinc plate, because it may be sent readily, by mail or otherwise, to some more favored locality which boasts a lithographic printer.

And, touching on this last-named adjunct to civilization, it is important to remember that the making of a drawing on the lithographic stone or on the zinc plate is one thing, whereas the successful printing from the stone or plate is quite another. As for the technic of printing lithographic drawings, that is a subject of serious study in itself, and for the architect or draftsman interested primarily in the drawing and not trained and equipped for the task of printing, it is far the wisest course to employ a trained lithographic printer to pull the prints from one's lithographic stone or zinc plate.

It is not generally appreciated by architects and draftsmen that sketches and drawings made with the lithographic pencil on tracing-paper may be transferred to the lithographic zinc plate and lithographic prints made therefrom with excellent results. The only difficulty in this procedure lies in the fact that whereas there are many lithographic printers who can print admirably from the stone or zinc plate on which a drawing has been made, there are few so specialized in the art as to be capable of doing wholly commendable transfer work.

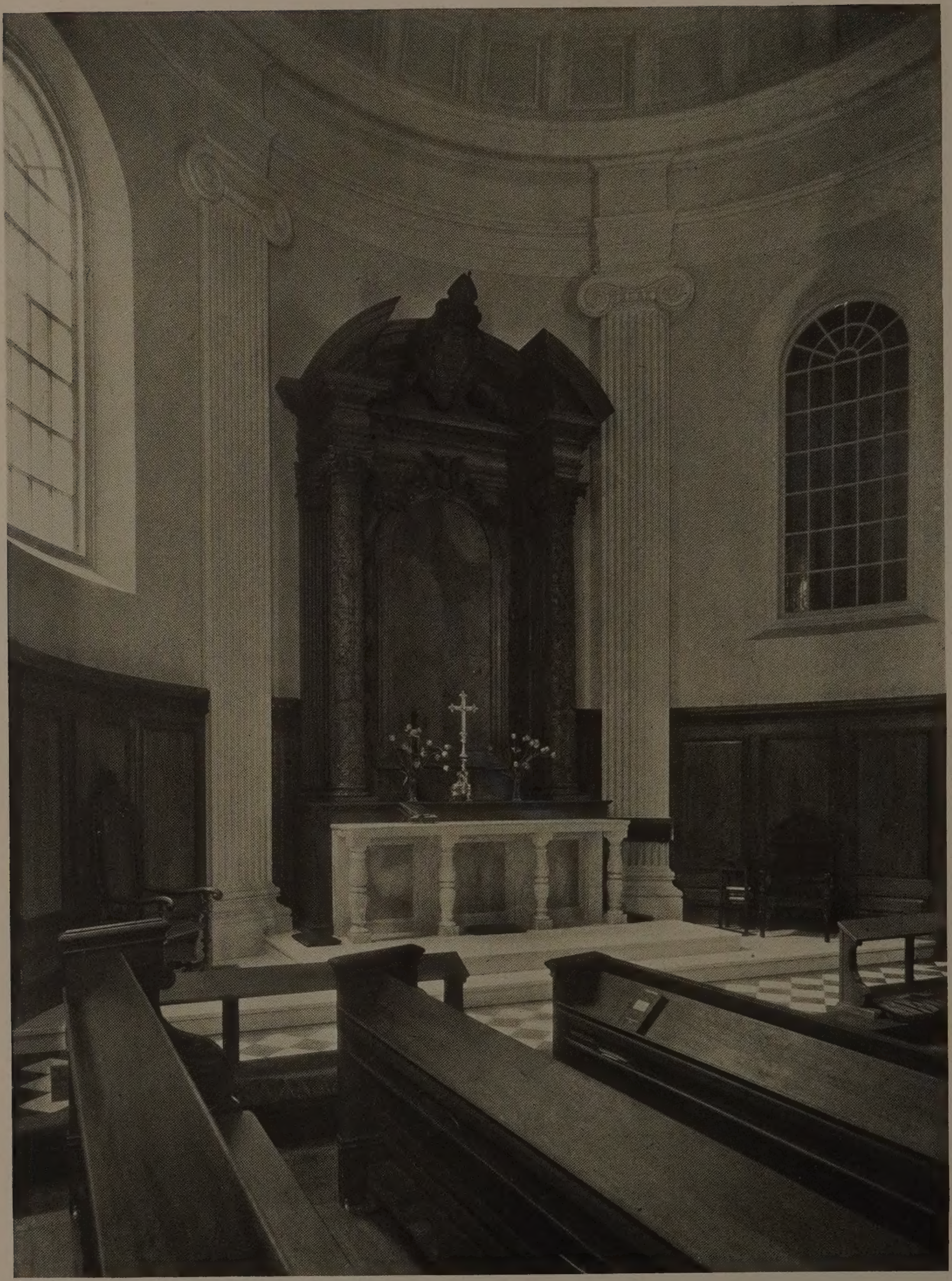
But, to the ardent, difficulties of all sorts are commonly but a spur to effect their overthrow. "Obstruction is but virtue's foil. From thwarted light leaps color's flame. The stream impeded has a song." And surely the captivating qualities which belong to the lithograph at its best justify the desire of the draftsman who has once experienced the thrill of drawing on stone, to emulate the masters in this art.



Alterations and Additions to
St. Paul's Cathedral, Boston, Mass.

CRAM & FERGUSON, ARCHITECTS

Photographs by Paul F. Weber



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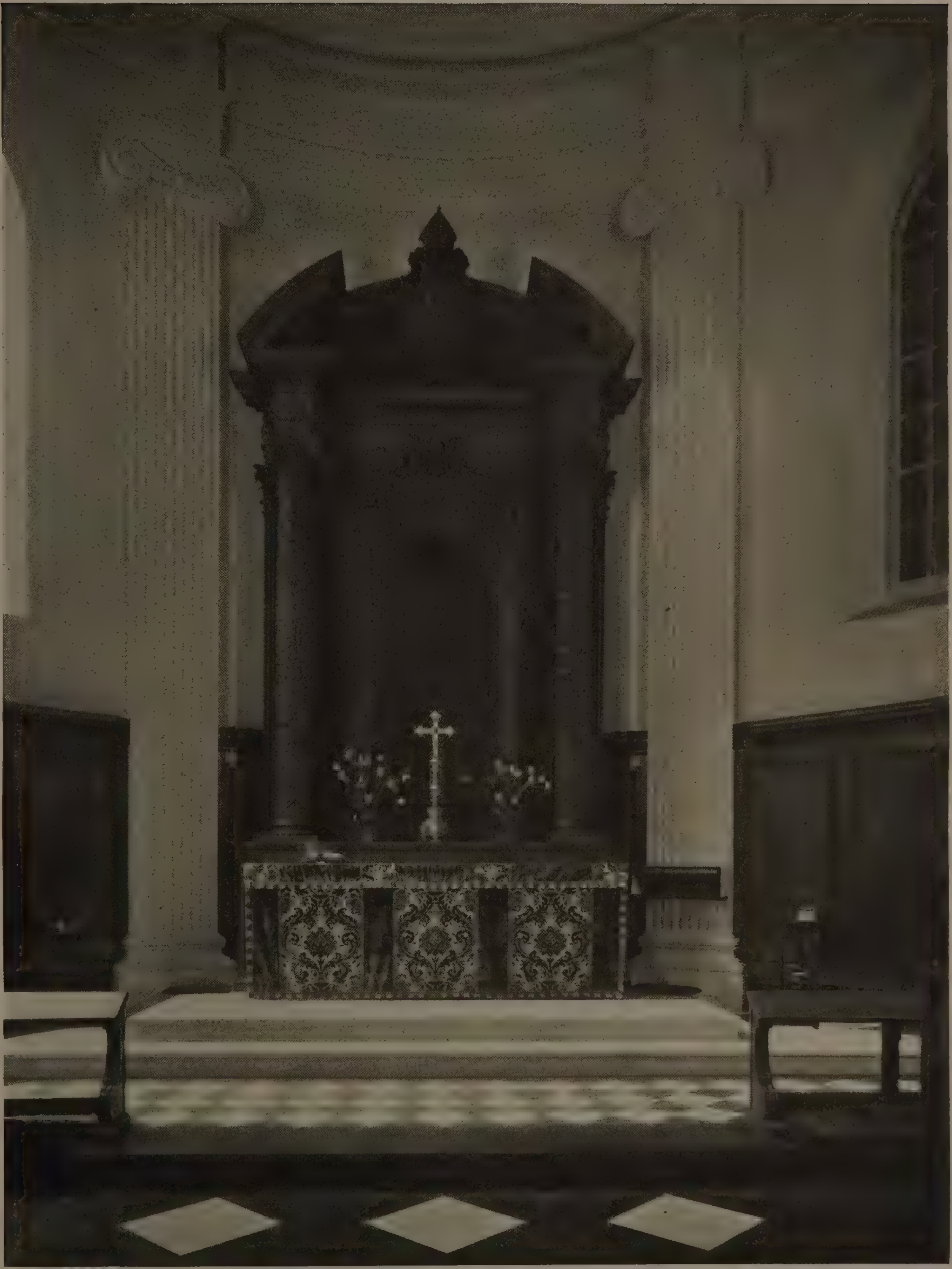

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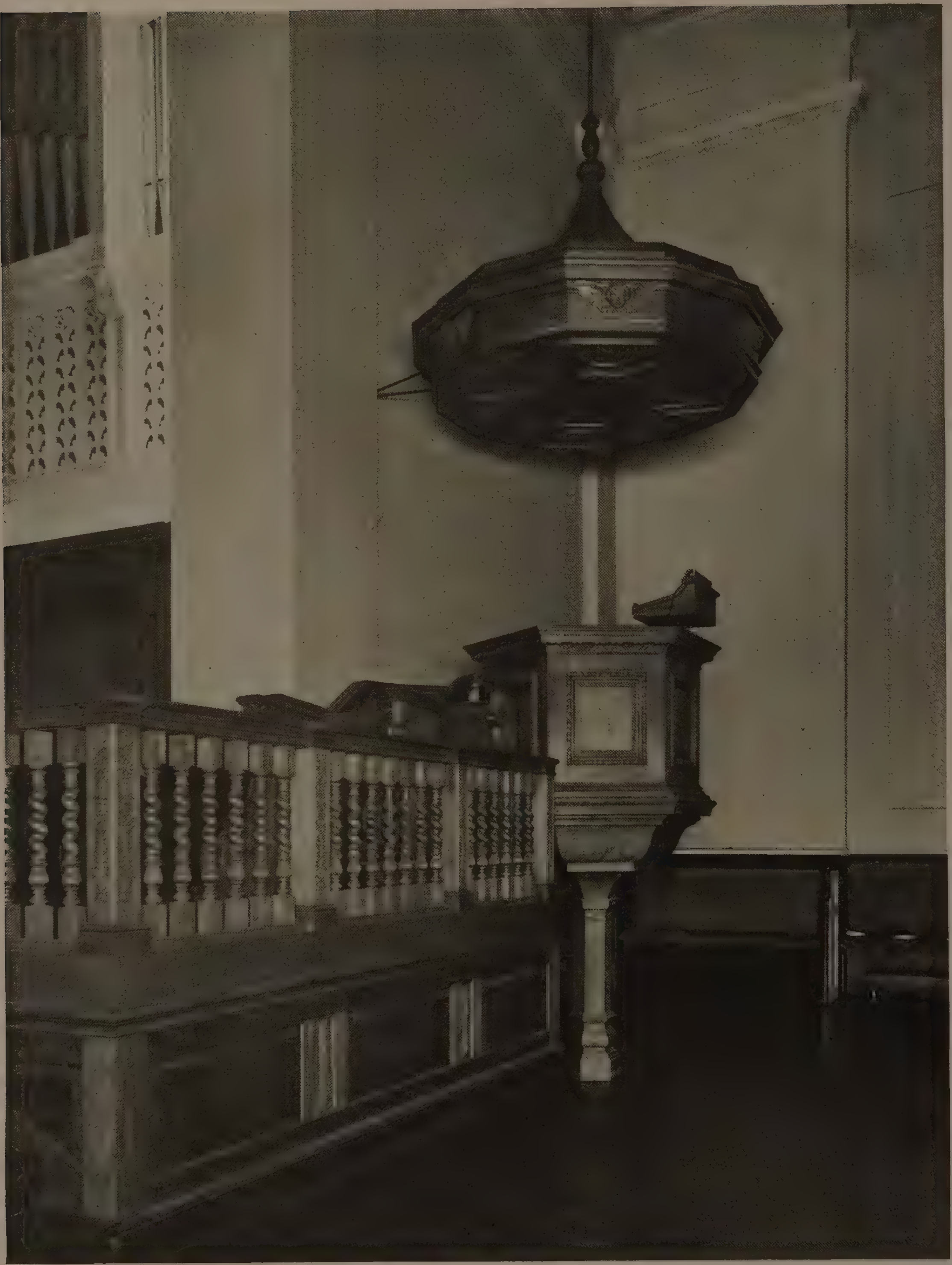

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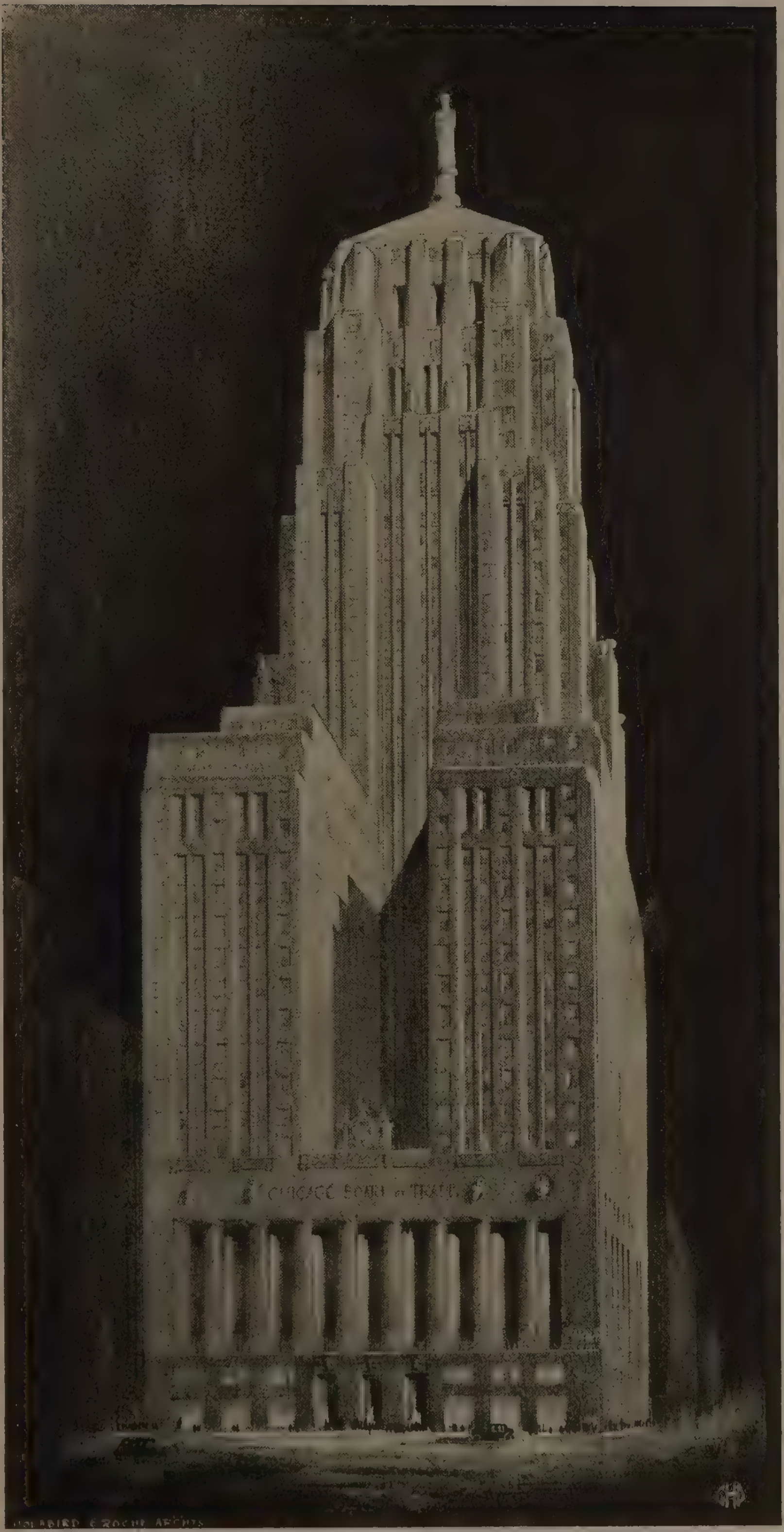
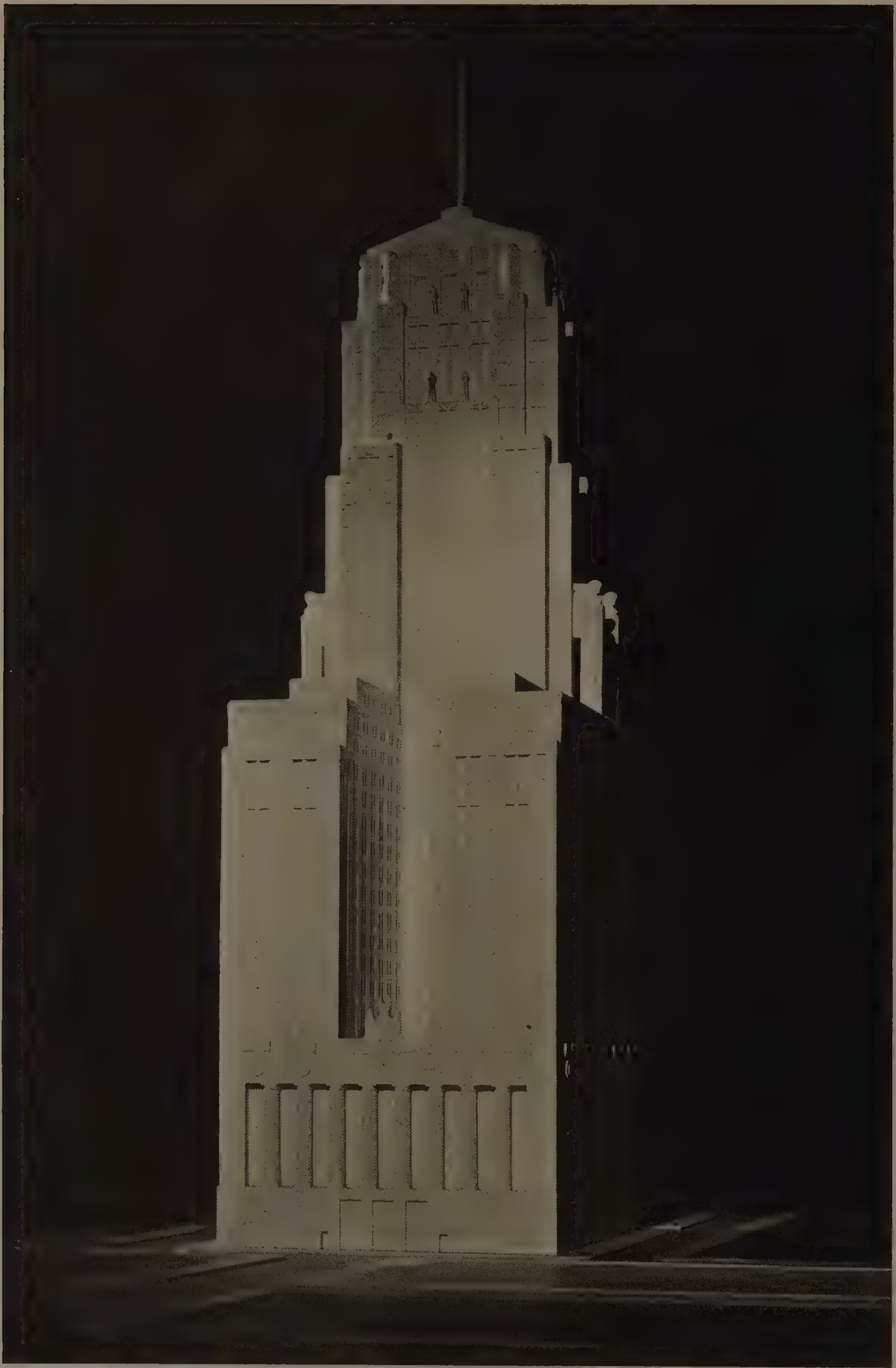


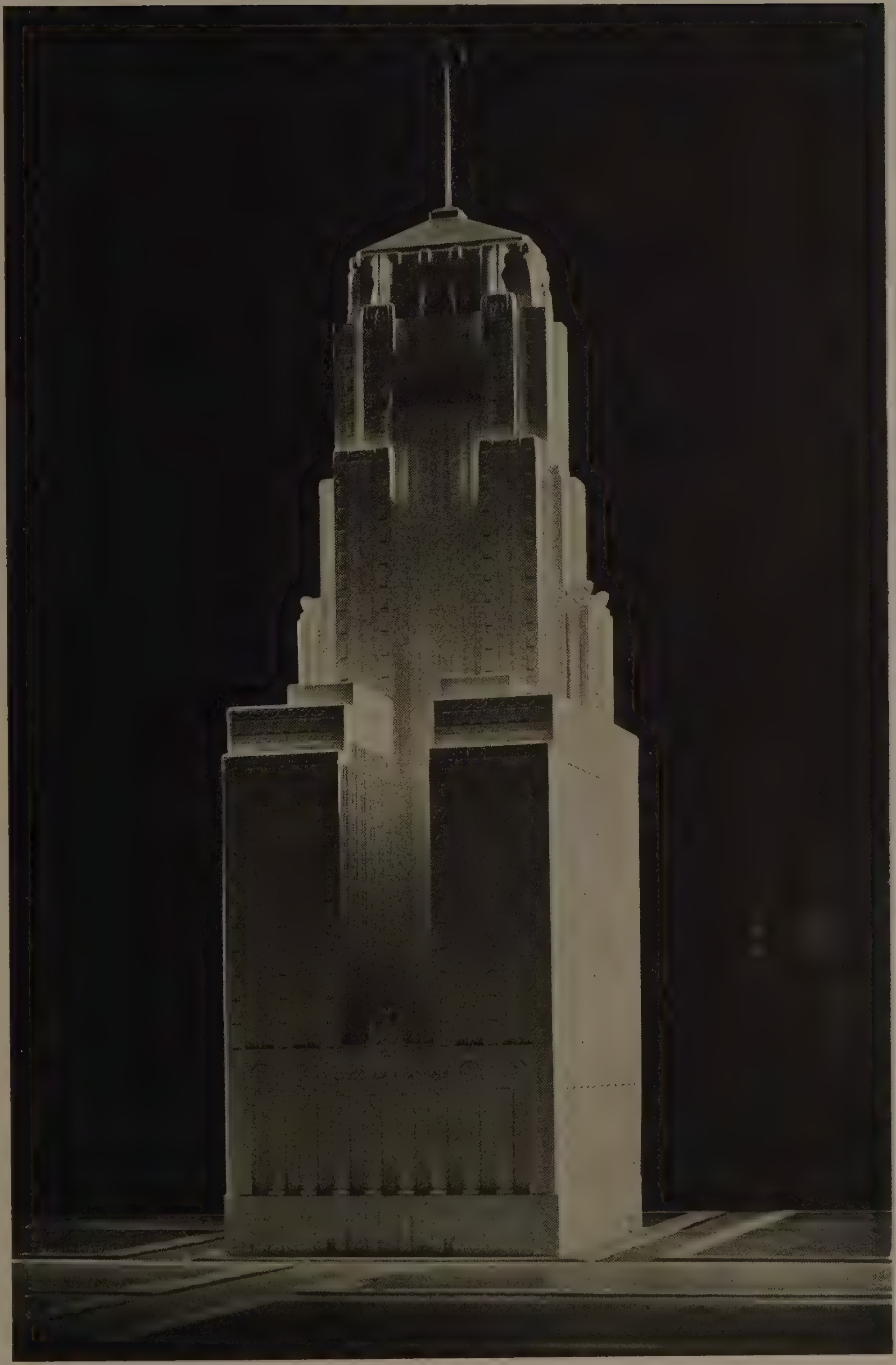
Preliminary
Perspective
and
Studies of
the Model,
Chicago
Board of Trade
Building,
Chicago, Ill.

HOLABIRD & ROOT,
ARCHITECTS

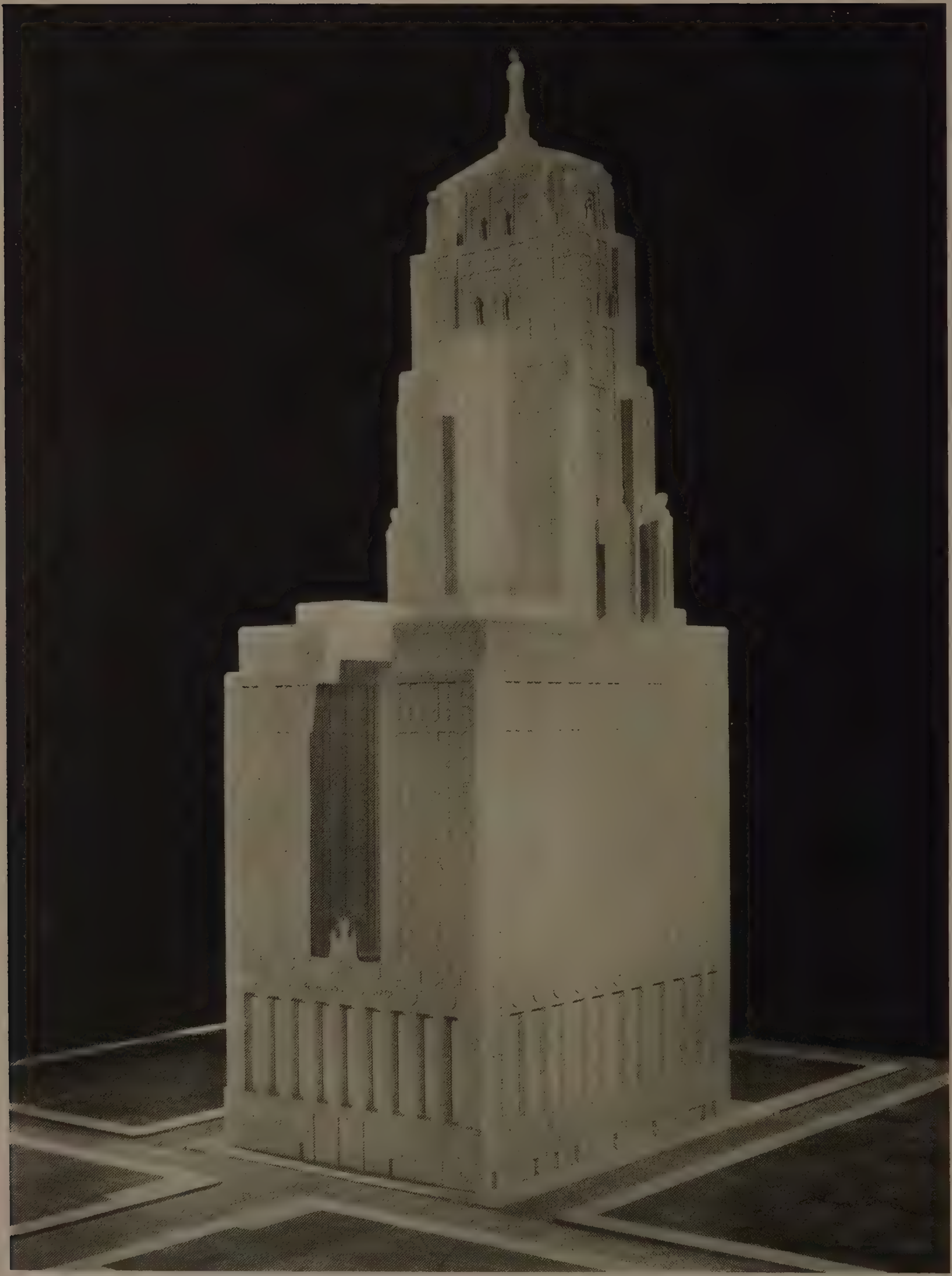
Drawing by Gilbert Hall



Preliminary Model Study, Chicago Board of Trade Building HOLABIRD & ROOT, ARCHITECTS



Preliminary Model Study, Chicago Board of Trade Building HOLABIRD & ROOT, ARCHITECTS



Preliminary Model Study, Chicago Board of Trade Building HOLABIRD & ROOT, ARCHITECTS

EDITORIAL COMMENT

❖ Vol. LVIII, No. 2 ARCHITECTURE August, 1928 ❖

Artistic creation is a never-ending stream. In art, unlike science, there is no single "right way." Only to stand still is wrong, for that belies the imaginative and creative nature of art itself.

FISKE KIMBALL

A VISTA

AFTER an experience in the subway's rush hour, or after drifting with the traffic stream on Fifth Avenue at midday, one is convinced that New York City has reached the extreme limit of population that can be contained without the city's bursting. Surely it is no time to read the verdict of those who are studying the Regional Plan of New York and Its Environs, for this brings the sober judgment that in 1965 this region will have a population of 21,000,000. One comforting thought remains with us: we shall probably not have to be here to see that day.

WILLIAM RUTHERFORD MEAD

WITH the passing of William Rutherford Mead, America of to-day loses one of the few remaining links with the period that marks America's architectural awakening. At the moment it is the fashion to decry the traditional classic forms, to regard the Corinthian capital and the egg-and-dart moulding as dry bones from a past with which we have little if anything in common. Whether the attitude mirrors an inconsequential phase or whether it marks a definite break in architectural growth, is something that we need not determine at the moment, even if we had the assurance of an ability so to do. In any event the Corinthian capital and the egg-and-dart have endured for a long time, and possibly have not reached the end of their usefulness, nor the end of their beauty, even now.

It is difficult, even for those of us who have witnessed the dark days of the last quarter of the nineteenth century, to grasp in its entirety the renaissance that we have come to date from the Chicago Fair of 1893. The movement started fifteen or twenty years before that time, practically coincident with the founding of McKim, Mead & White, but it was slow in emerging from the stygian depths to which all art in America had fallen.

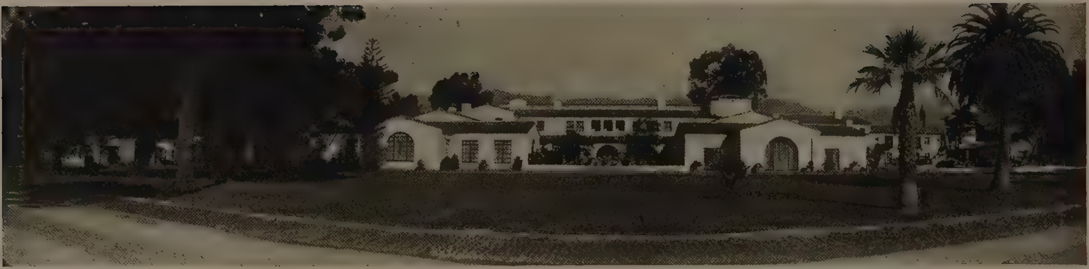
The part played in that renaissance by the firm of McKim, Mead & White is deeply etched upon the architecture of America. The part played by William Rutherford Mead, a modest, almost shy gentleman, in welding together the genius of McKim and of White, in tempering their excesses of enthusiasm, in organising a memorable esprit de corps—that essential contribution has been appreciated chiefly by those who were near to him and to the work of his office. To the very last of his long and active life, in his presidency of the American Academy in Rome, Mead held high and undimmed the torch of the classic tradition.

CHARLES BULFINCH

AT a recent meeting of the Executive Committee, American Institute of Architects, a resolution was passed indorsing the proposal that Charles Bulfinch, architect and statesman, be nominated for election to the Hall of Fame. Up to the present time there is therein no son of the mother of all the arts. The next election, by a committee of one hundred representative Americans, occurs in 1930. Meanwhile there is much work to be done by all those who would see the profession of architecture thus honored. The name of our illustrious first great architect must be made widely known; the importance and distinction of his contribution to the country must be made matters of public knowledge. His service to American art will be appraised by the nation largely on the basis of the value put upon it by the members of his own profession. We are fortunate indeed in having such an obvious first choice upon whom all can heartily agree. If every architect will now constitute himself a committee of one to make Bulfinch known to the nation, this opportunity for honoring his name and that of the profession will not be lost.

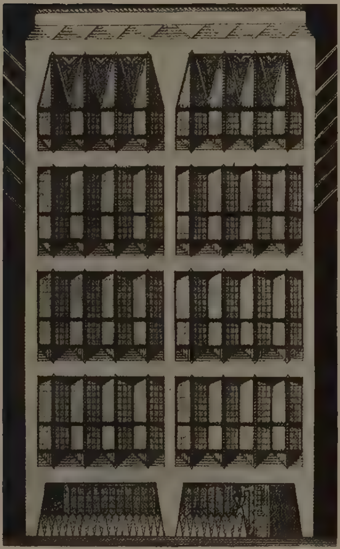
What architecture has to do with building is the arrangement of its lines.

A. S. G. BUTLER, F. R. I. B. A.

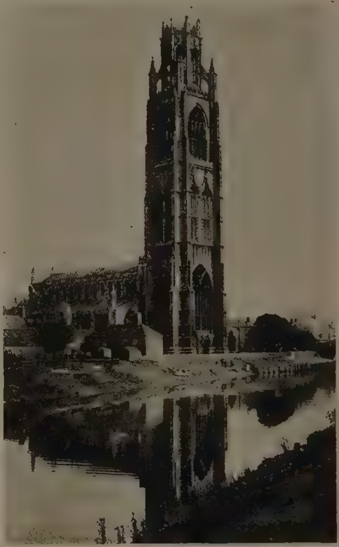


The Santa Barbara Biltmore Hotel, recently completed. Reginald D. Johnson, Architect. Awarded Silver Medal in Architecture, for General Work, by Architectural League of New York

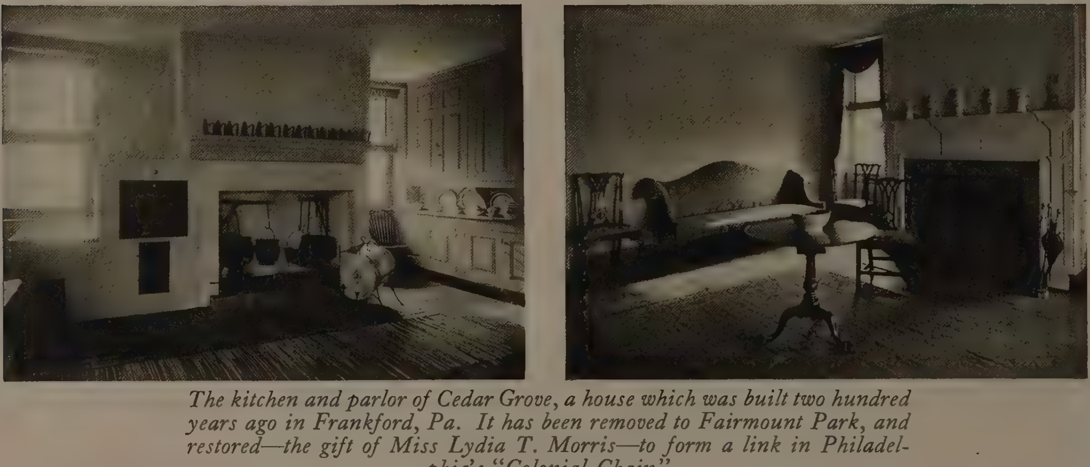
Architectural News in Photographs



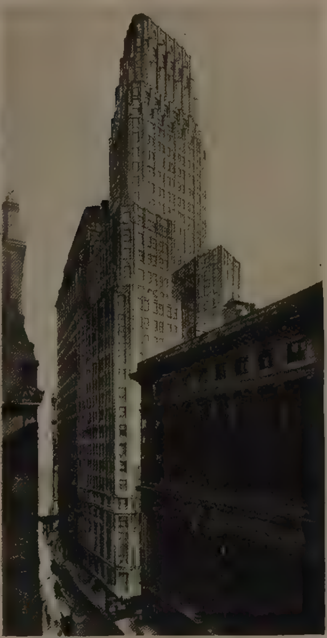
A proposed studio building for Chicago which Barry Byrne has designed, for execution in concrete, bronze, copper, and glass

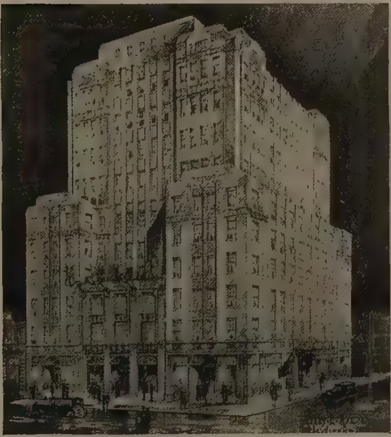


The famous Church of St. Botolph's, whose timbering is seriously menaced by ravages of the "death-watch" beetle

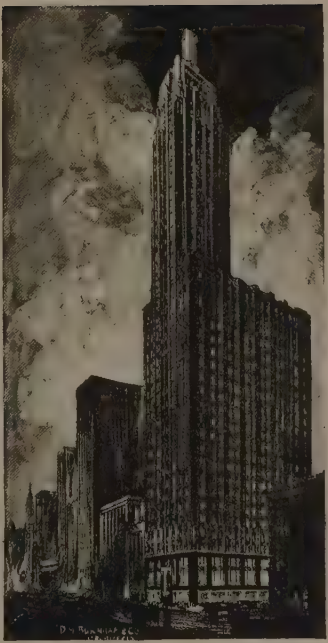


The kitchen and parlor of Cedar Grove, a house which was built two hundred years ago in Frankford, Pa. It has been removed to Fairmount Park, and restored—the gift of Miss Lydia T. Morris—to form a link in Philadelphia's "Colonial Chain"



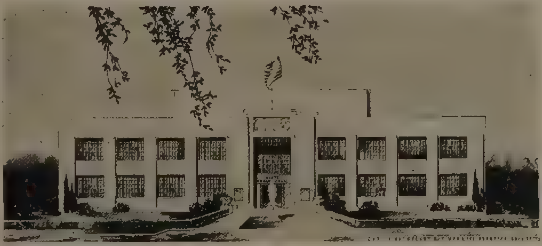


The Proposed Northern Athletic Club, for Chicago. H. L. Morse, Architect

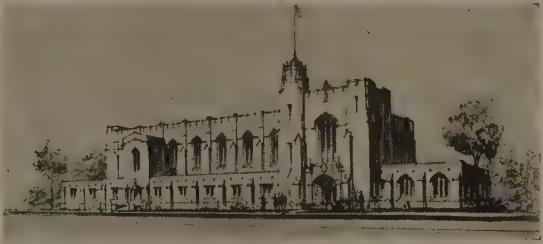

D. H. BURNHAM & CO.

A proposed 35-story building for New York. Delano & Aldrich, Architects

A proposed green-and-gold skyscraper for Chicago, by D. H. Burnham & Co.

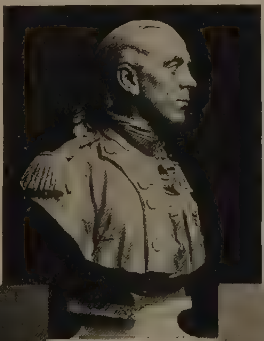


A new Trade School to be erected in Hartford, Conn., under the direction of Carl J. Malmfeldt and T. Merrill Prentice, Architects

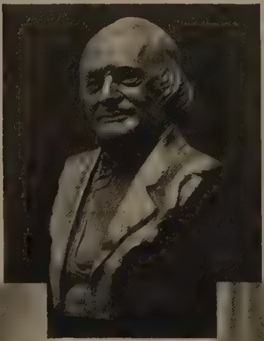


The University of Chicago is to have a new $400,000 gymnasium, from the design of Armstrong, Furst & Tilton, Architects

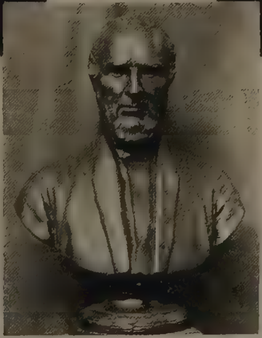
Busts recently unveiled in the Hall of Fame, N.Y. University, New York City



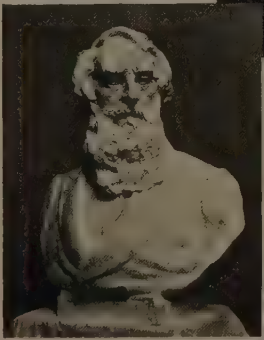
John Paul Jones, by Charles Grafly after Houdon



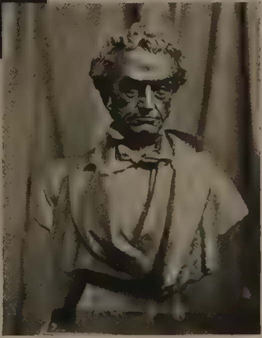
Louis Agassiz, by Anna V. Huntington



John Greenleaf Whittier, by Rudolph Evans

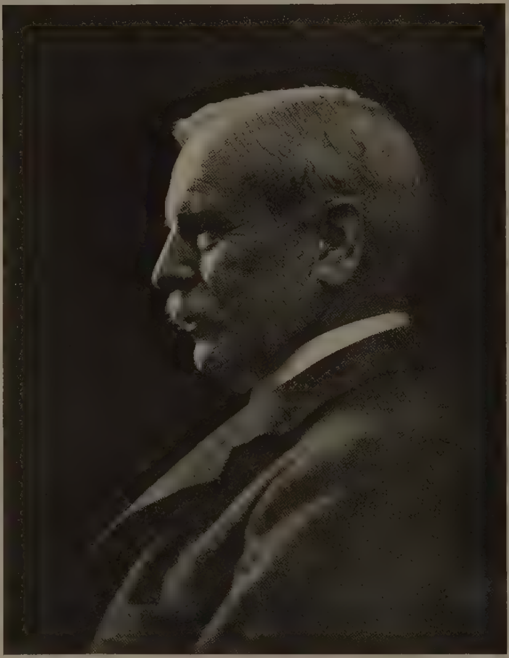


Samuel T. Morse, by Chester Beach



Rufus Choate, by Hermon A. MacNeil

William Rutherford Mead, 1846—1928



William Rutherford Mead was born in Brattleboro, Vt., August 20, 1846. He passed through the Brattleboro High School, attended Norwich University, and was graduated from Amherst in 1867. In 1902 he received from Amherst College the honorary degree of LL.D., and in 1909 from Norwich the degree of Master of Sciences.

Mr. Mead commenced the study of architecture in the office of Russell Sturgis of New York City in 1868. In 1871 he went to Florence, Italy, for study and travel. In 1872 he began the practice of his profession in New York with Charles F. McKim, and in 1878 Stanford White was associated with them under the firm name of McKim, Mead & White.

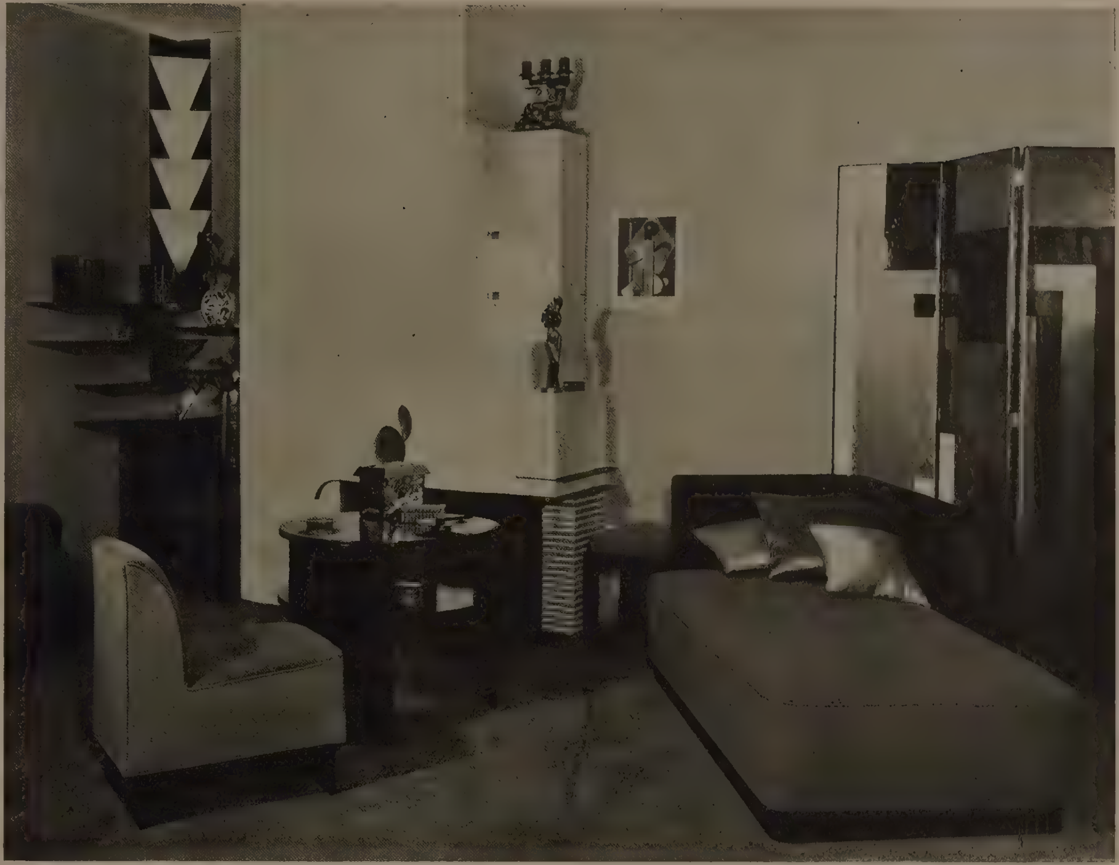
Mr. Mead was a Fellow of the American Institute of Architects and was President of the New York Chapter, 1907 and 1908; member of the American Academy of Arts and Letters, and in 1913 was awarded the Gold Medal of Honor, awarded to an architect for the first time. He was an Academician of the National Academy of Design. He had been President of the American Academy in Rome since 1909. He was made Knight Commander of the Crown of Italy in 1922. Since 1920 Mr. Mead had retired, and spent much time abroad. He died June 20, 1928, in Paris.

To the Editor of Architecture:

You asked me to write a few lines about my old friend and partner, Wm. Rutherford Mead. Naturally what immediately occurs to us all was his lovable disposition and gentle manner. He was, however, far from incapable of explosion at certain moments. I remember well during an interview with a rather irascible client who criticised some purely architectural details, Mead exclaimed: "Mr. Blank, I have been practising architecture for thirty years, and I know what I am talking about." This naturally did not pacify the client, and the meeting came to an abrupt end, Mr. Blank departing angrily in his coupé. The details remained, however, as they were designed. He had a heartfelt interest in all the office force of McKim, Mead & White up to the last, and long after he ceased to be a member of the firm, barely five weeks before his death, learning of the presence in Paris of two valued draftsmen long connected with the office, he sought them out and piloted them around the city, and I am sure enjoyed it as much as they, such was his fatherly attitude towards them. His restraining instinct upon the soaring imagination of his partners was also most characteristic, and his criticism resulted frequently in certain modifications of their designs, not only from a practical point of view, but also from the purely artistic standpoint. A certain caricature made by Saint-Gaudens shows Mead flying two kites, symbols of his aspiring partners, and struggling strenuously to bring them down to earth! As President of the Trustees of the American Academy in Rome, he adhered closely to the policy laid down by his predecessor, Charles F. McKim, and during his administration that institution grew steadily, and the output in quality exceeded even the hopes of the Founders.

Yours very truly,
Wm. Mitchell Kendall

A Modernistic Apartment

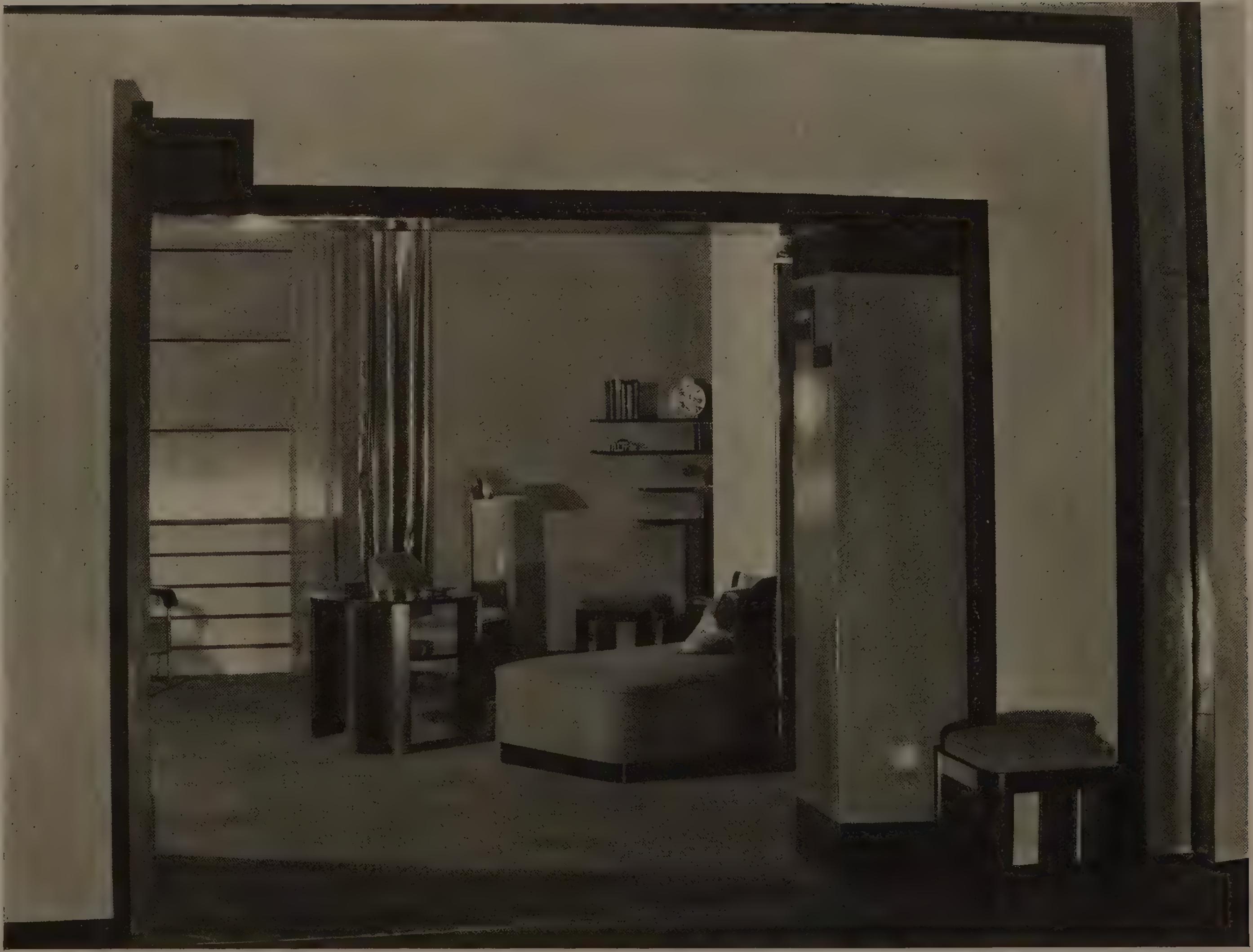


DESIGNED BY WILLIAM E. LESCAZE
Photographs by Steiner

William E. Lescaze was born in Geneva, Switzerland, and studied architecture at the Ecole Polytechnique Federale, under Professor Karl Moser. For several years after receiving his degree, Lescaze worked with the Committee for the Reconstruction of Devastated France. Then in 1920, with modern design and ideas dominating his thoughts, he came to America. It was too early—but Lescaze remained to see the modern movement gain strength and arouse the interest of America.

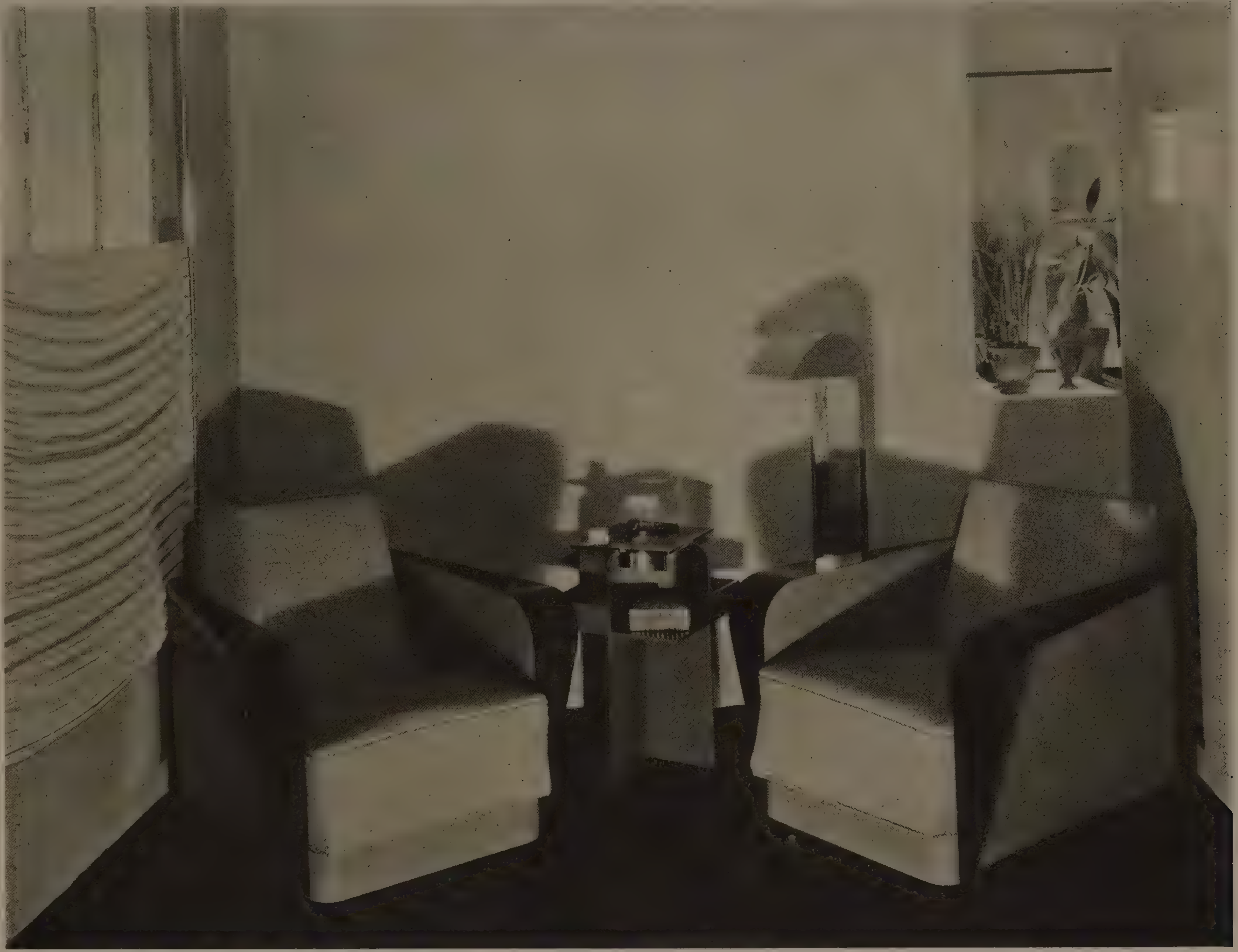
Two designs for which Lescaze is best known are his competitive drawings for the League of Nations Building and his scheme for a War Memorial of glass and granite, illuminated from within.

The photographs here shown picture a living-room and man's study set up as a permanent exhibition at Frederick Loeser & Co.'s department-store, Brooklyn. The walls are of oyster white, a warm light gray, and part in silver. The folding screen repeats this silver note, with red, black, and blue accents. There are silver bowls and ornaments about. The upholstery is of gray tweed on wood painted black and gray.

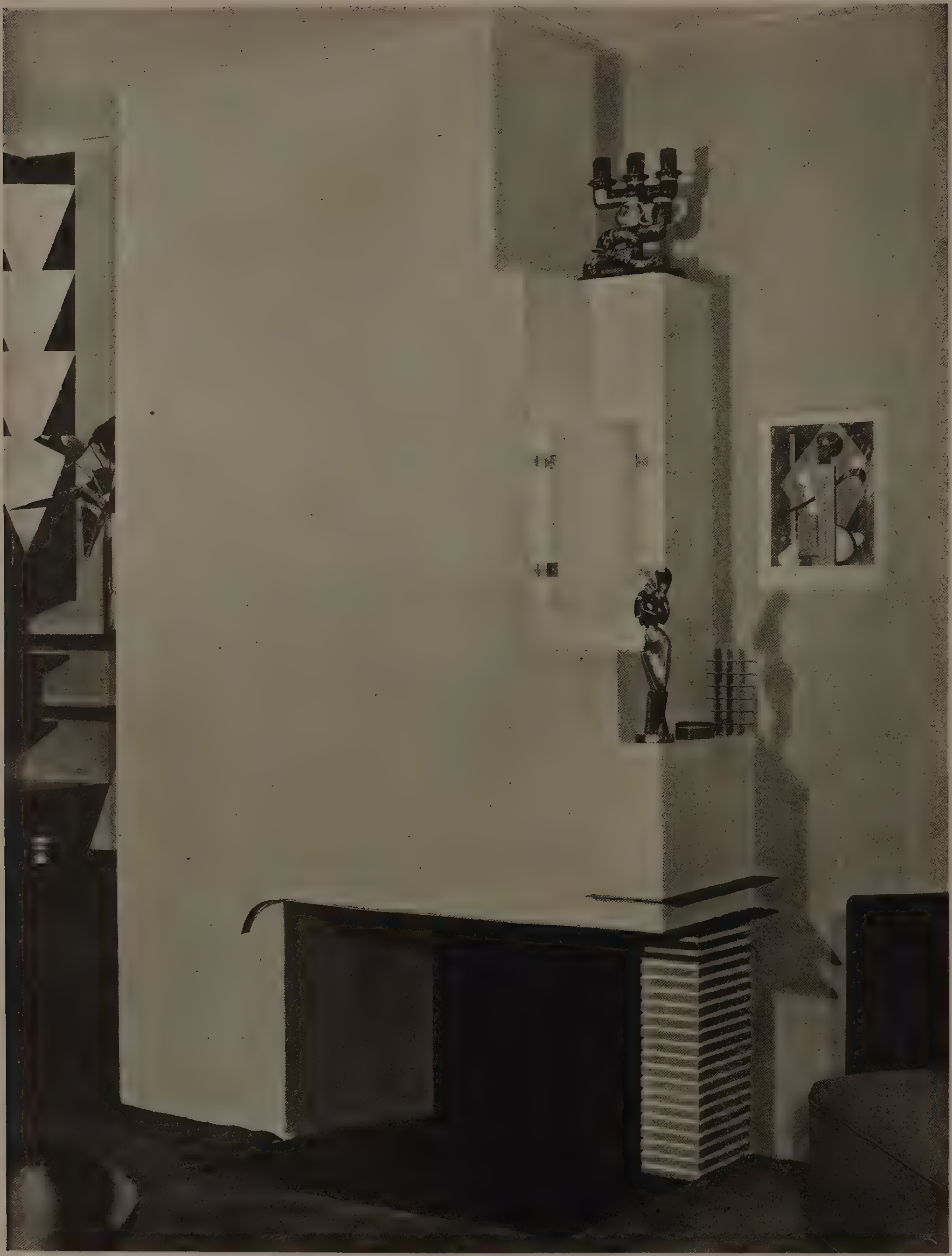


Modernistic Apartment

William E. Lescaze, Architect

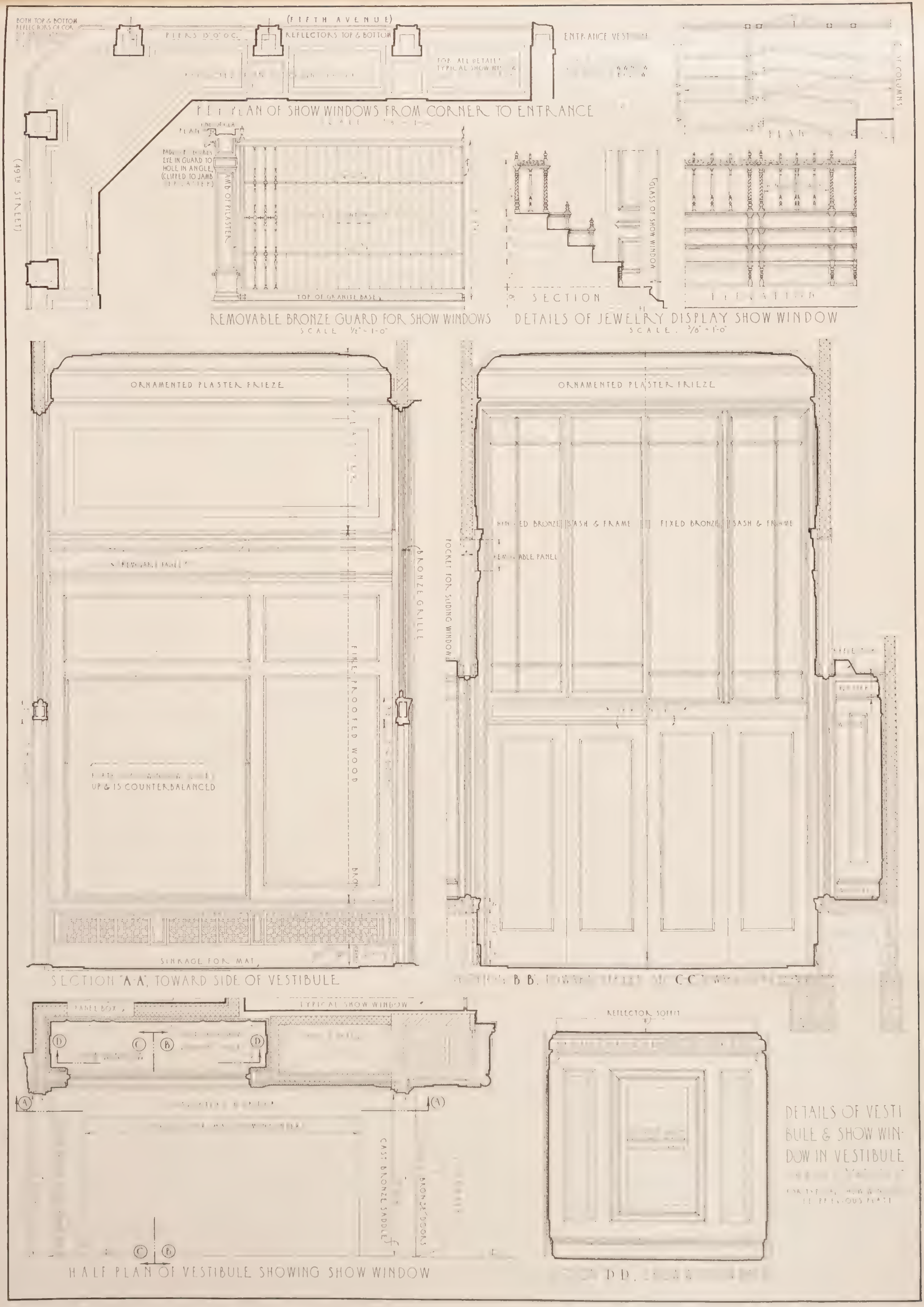


A Modernistic Apartment WILLIAM E. LESCAZE, ARCHITECT



Fireplace detail
A Modernistic Apartment

WILLIAM E. LESCAZE,
ARCHITECT


BOTH TOP & BOTTOM REFLECTORS AT COR.
(FIFTH AVENUE)
PIERS 15'0" O.C.
REFLECTORS TOP & BOTTOM
TOP ALL DETAILS TYPICAL SHOW WINDOW
ENTRANCE VEST
(49TH STREET)
PLAN OF SHOW WINDOWS FROM CORNER TO ENTRANCE
JAMB OF PILASTER
EYE IN GUARD TO HOLE IN ANGLE (CLIPPED TO JAMB OF PILASTER)
TOP OF GRANITE BASE
REMOVABLE BRONZE GUARD FOR SHOW WINDOWS
SCALE 1/2" = 1'-0"
GLASS OF SHOW WINDOW
SECTION
ELEVATION
PLAN
DETAILS OF JEWELRY DISPLAY SHOW WINDOW
SCALE 3/8" = 1'-0"
ORNAMENTED PLASTER FRIEZE
BRONZE GRILLE
FIRE PROOFED WOOD
UP & IS COUNTERBALANCED
SINKAGE FOR MAT
SECTION "A-A", TOWARD SIDE OF VESTIBULE
ORNAMENTED PLASTER FRIEZE
POCKET FOR SLIDING WINDOW
HINGED BRONZE SASH & FRAME
FIXED BRONZE SASH & FRAME
REMOVABLE PANEL
B B
C C
PANEL BOX
TYPICAL SHOW WINDOW
D
C
B
A
CAST BRONZE SADDLE
BRONZE DOORS
HALF PLAN OF VESTIBULE SHOWING SHOW WINDOW
REFLECTOR SOFFIT
D D
DETAILS OF VESTIBULE & SHOW WINDOW IN VESTIBULE

Details of Show-Windows, Saks Fifth Avenue, New York City

Starrett & Van Vleck, Architects

NOTES

Details of Vestibule Show-Window, Bronze Guard for Windows, and Jewelry Display-Window. Saks Fifth Avenue, New York City

STARRETT & VAN VLECK, ARCHITECTS

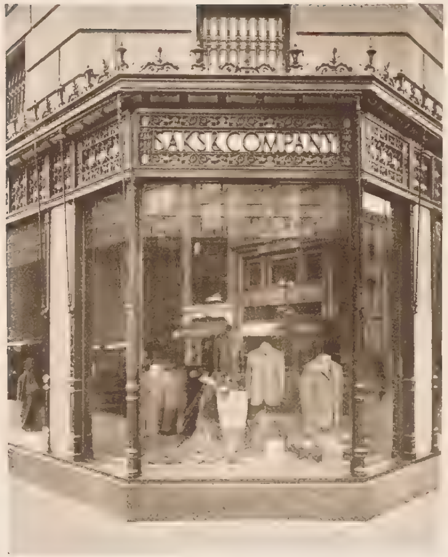
Key Plan, from corner to entrance vestibule, showing corner cut off at 45 degrees; this is the only area which a store manager gladly spares from his main-floor space because it gives him better display space than a squared-out window with a pier at the corner. Another solution of this feature by the same architects is that at Lord & Taylor's, New York City, where the exterior wall is carried on a direct line, also at 45 degrees, between the two piers nearest the corner, and a small bay projected from the face of the wall. The top and bottom reflectors at such a corner should be covered by frosted glass so that exposed bulbs are hidden from view by persons looking in at adjacent windows.

Removable bronze window-guard, locked in place by a padlock fitting through eyes in the top and bottom rails of the guard, and corresponding ones in angles clipped to the pilaster jamb. These guards are put in place over night and on days when the store is closed, or when the crowds out for celebrations might endanger the glass. During the Lindbergh celebration Saks was practically the only store on the Avenue which did not have to erect special wood barriers, and it derived the advertising value from its unobstructed displays. Only the guards adjacent to the entrances are ornamented, as shown in the drawing; all others are of plain mesh instead of the modelled spindles.

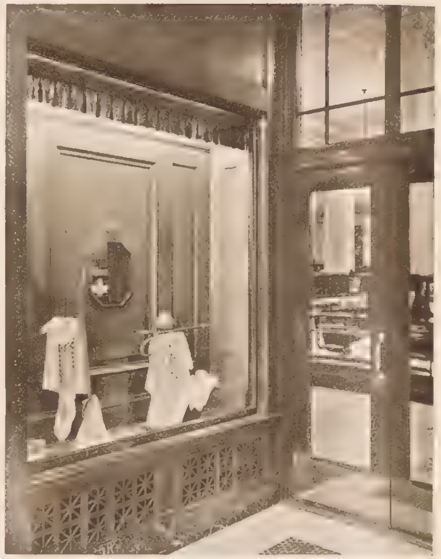
Jewelry Display-Window, now replaced by "*moderne* treatment," offers suggestions for the narrow shop displaying small articles, particularly where constructional difficulties make a low and level show-window floor impossible.

Vestibule Show-Window, illustrating what may profitably be done with shallow space in almost any commercial building. Access from behind is not possible, so the window is built to slide up and is counterbalanced. Heat for the vestibule is supplied by hot air coming from a duct outlet under the window. Rosettes are placed on the show-window back, similar to those of the typical ones (see previous plate), screwed in threaded sockets which will receive hooks in place of the rosettes, and which can then be fitted up with a pole to receive draped materials.

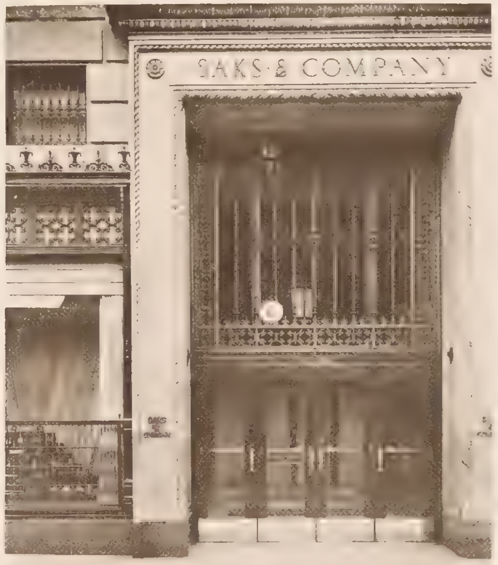
Vestibule glazed partitions, designed to admit as much natural light into the store as possible.



At the corner. Note the protection of the rolled awnings



The vestibule window as a means of utilizing shallow space



Showing details of bronze window guard and frieze, with cornice sheltering the awning

STARRETT & VAN VLECK, ARCHITECTS

Photographs by Worsinger

Details of Show-Windows, Saks Fifth Avenue, New York City (See drawing overleaf)

Photography of Interiors

By Eugene Clute

ARCHITECTS, it would seem, have troubles enough in the practice of their own profession, without attempting to master the technic of the architectural photographer. The article which follows is offered, not with the purpose of making photographers out of architects, but merely to help the latter to secure more nearly satisfactory records of completed work. With the need of depending upon the average commercial photographer in most cases, since the really skilful ones are few and far between, the architect himself should know, in a general way, how the best results can be achieved. The author has directed the making of architectural photographs for over fifteen years and herein shares his expert knowledge with the architect.

ARCHITECTURAL photographs often fail to do full justice to the work of the architect, and this is especially true of photographs of interiors. Under pressure of other matters the architect may assume that the best possible results have been obtained, but this is not always the case, for architectural subjects present problems of an especially difficult character. If the architect has given some attention to this matter, if he is acquainted with the difficulties and the possibilities, he is able not only to judge photographs of his work fairly, but, on occasion, to give needed advice to the photographer, describing the results he desires, and perhaps pointing out the way to obtain them.

Much of the unnaturalness of most photographs of interiors is due to the fact that the camera shows everything with equal clearness all the way to the edge of the picture, while the eye does not see things in that way. A moment's thought and a little experimentation make it apparent that we see clearly only those objects which lie within a limited circular field of vision, and that all around this field are indefinite images growing more and more indefinite the farther they are away from the centre of interest.

If one looks diagonally across a room toward a fireplace, one sees clearly the group of furniture about the hearth, the detail of the mantel and other objects that are near the point upon which the eyes are directed. One does not see the upper part of the chimney-breast so clearly and can hardly be said to see the ceiling, though one may be conscious of it and of its character, while the walls to the right and left of the fireplace are sensed rather than seen, and the portion of the floor near by is very indefinite, as are the pieces of furniture in the foreground.

A camera set up on the spot where the observer stood, and pointed in the direction of his

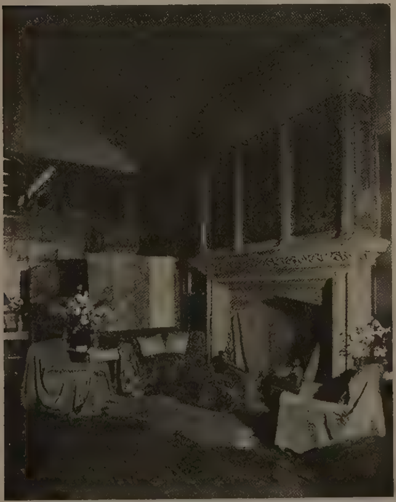

Tebbs & Knell

Fig. 1. Subduing the overbright ceiling

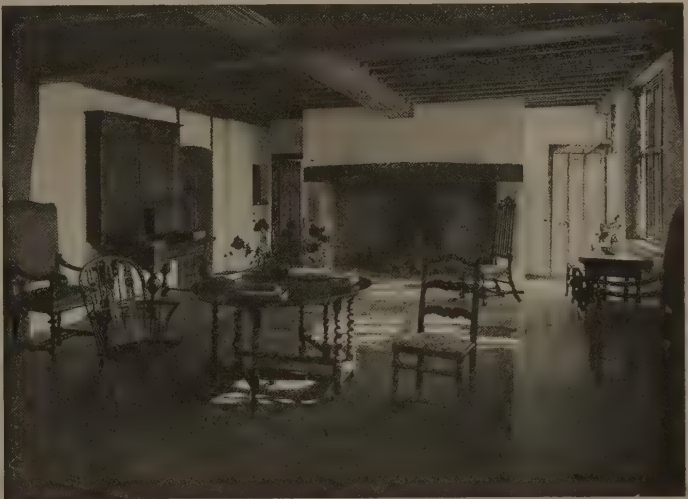
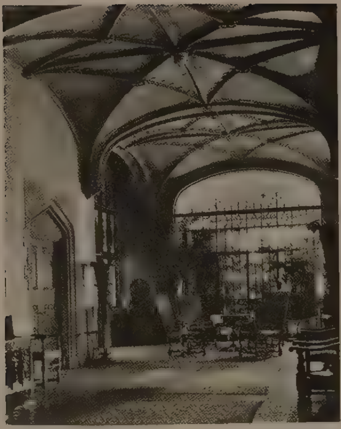
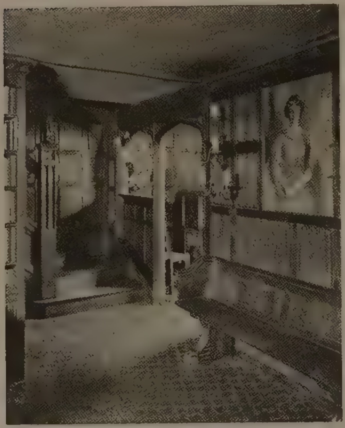

John Wallace Gillies

Fig. 2. Good handling of sunlight through door and windows



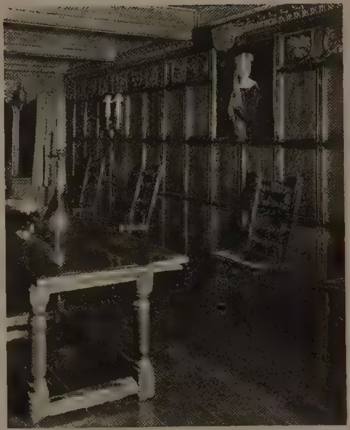
Tebbs & Knell

Fig. 3. Through a dark room toward bright light



Tebbs & Knell

Fig. 4. Double exposure for uneven lighting



Tebbs & Knell

Fig. 5. Diffused lighting for detail of panelling

gaze, gives just as much prominence to the things that were not seen clearly as to those in and about the centre of interest. The lens has not the limited field of clear vision with edges that grade out to darkness. Also it lacks the selective faculty that is possessed by the eye and the mind of the observer. Probably many details that are seen by the eye register but faintly if at all in the mind, because we regard them as unimportant and ignore them. It is quite likely that we read into our view things that we cannot actually see at the moment but that we know are there because of previous close observation.

It is rather too much to expect an insensate lens to do all of these things that are done quite as a matter of course by the eye and the mind. But we can do much better than accept the bald statement of what the lens sees as the best picture of a room or of a group of furniture that can be produced by photography. There are ways of approximating the natural appearance of these things.

A good illustration of the way in which parts of an interior that would otherwise assert themselves unduly in a photograph can be retired by the handling of the light during the making of the exposure, is seen in Figure 1. This photograph conveys an impression very much like that received by a person viewing the room from the same point of view. The centre of interest is shown clearly, while the parts around the edge of the field of vision are subdued by being thrown into shadow. If some effective expedient had not been adopted to prevent it, the ceiling of this room would have shown as a prominent area, busy with detail, that would have drawn attention to itself. Being of plaster in ivory tones, it is much lighter than the wooden panelling, and it would have given the picture an irregular light-corner. Subdued, it forms part of the dark area that acts as a foil for the more strongly lighted fireplace and the furniture grouped in front of it.

This was not difficult of accomplishment. It required a little thoughtful study of the existing conditions and the exercise of imagination in picturing the way the different parts of the room would appear in a photograph, according to their relative photographic strength, also the kind of pattern of light and dark that would be produced if things were allowed to take their course. The faults that would exist in such a photograph were apparent, and it was equally apparent that the thing to do was to hold back the exposure on the ceiling, the segmental section of end wall and the upper part of the chimney-breast, by preventing them from receiving more than a fraction of the amount of light received by the rest of the room during the exposure of the photographic plate. This was done by holding a large, thin board over and in front of the photographer's portable electric arc-lamp in such a way that a shadow was cast on these portions of the interior. They were, however, permitted to receive sufficient light to bring out the detail to the right degree. The board was handled by the photographer's assistant, who kept it in motion in order that the shadow it cast might have no definite edge.

Practically the same result that is shown in Figure 1 might have been obtained without this special manipulation of the light by printing the parts very dark that it was desired to subdue, while the other parts of the picture were protected. This would have simplified the making of the negative, but would have called for special attention in the making of every print. When the effect is obtained in the negative, it is done once for all time. The method of printing mentioned is very useful in obtaining better prints from negatives already made that have faults of this kind.

In Figure 2 is seen a very pleasing view in which the necessary subordination of certain parts of the interior came about through the choice of a time of day for making the photograph when the light came in strongly through the window and the open door, leaving the ceiling beams and the greater part of the floor dark. Also since the light does not shine directly on the farther wall, the glare of white, which would otherwise have spoiled the composition, is avoided and in its place we find a pleasant soft gray. The squares of sunlight on the floor give the high notes of the composition and lend a sense of life and cheerfulness to the picture.

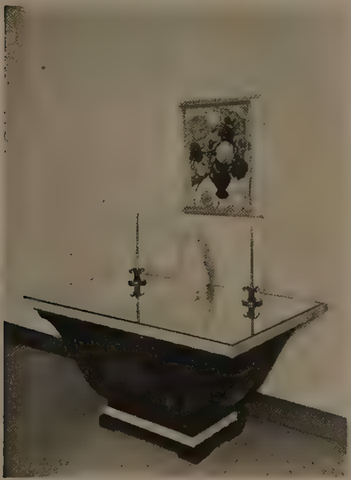
Sometimes it is necessary to take a photograph toward the natural source of light, as in Figure 3. The conservatory would have been merely a blur of light, while the walls and ceiling of the gallery would have been insufficiently lighted, if special means of controlling the light had not been used as well as the usual means of preventing halation. The windows were covered with black cloth pinned to the woodwork, while the plate was exposed with light from a portable arc-lamp for the general illumination (the presence of the black cloth was not entirely obliterated, unfortunately, by the later exposure); then the lens was closed and the cloth removed from the window. Next, a short exposure was given to record the sash-bars and the light on the ceiling in the conservatory. The camera, of course, was not disturbed between the two parts of the exposure.

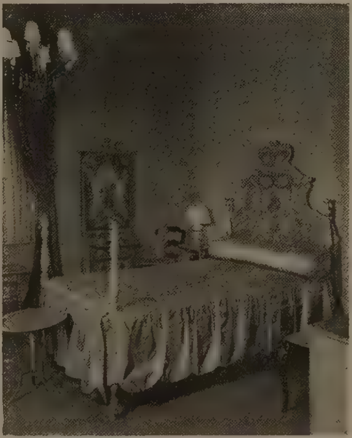
Another case in which the exposure of the plate was carried out in two parts is seen in Figure 4. Here the first part of the exposure was made with an electric arc-lamp placed near the camera for the general lighting of the room. Then the lens was capped and the lamp was moved into the adjoining room and so placed as to throw its light strongly through the doorway. In passing, it may be well to note that the height of the tripod was adjusted so that the camera lens was at the eye-level of a standing person. If the lens had been at the eye-level of a seated person, as it should be in many cases, the old-world friendliness that the architect gave to this room by using a low ceiling would have been lost. If the camera had been low, the ceiling would have appeared high and the photograph would not have conveyed the same impression of the room that is received by a person entering it.

In preparing to make the photograph shown in Figure 5, it was found that the slight gloss

Fig. 7. Adopting a high and close view-point for the sake of angularity in the composition

F. M. Demarest



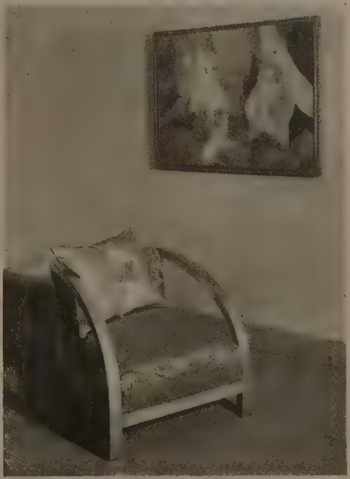


F. M. Demarest

Fig. 6. Lowering the view-point for more pleasing perspective of the bed. Walls darkened at top

Fig. 8. The high and close view-point chosen as an aid to characterization of the subject

F. M. Demarest

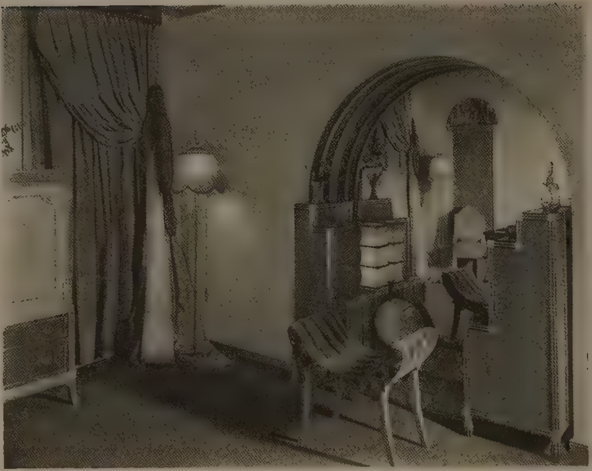


of the panelling caught the light from the arc-lamp and the high lights obliterated much of the wood grain, also that the general effect was harsh. Therefore, a diffusing screen, consisting of a curtain of tracing-cloth, was hung in front of the arc-lamp; it was part of the equipment supplied by the manufacturers of the lamp. Incidentally this lengthened the exposure greatly, consuming more of the photographer's time, but it remedied the trouble, as may be seen.

Mention has been made above of the practice of setting the camera with the lens at the eye-level of a seated person. Figure 6 is shown as an example of this, a case in which it was the right thing to do. The reason it was done is that otherwise the perspective of the bed would have been disagreeably exaggerated. The bed would have seemed to fill the room and to be too low. The wall of this room was pleasing because of its delicate, plain coloring, but in a photograph it would have lacked the necessary character to harmonize with the painted ornament of the bed, so a shadow was thrown on it at the top and graded out toward the bottom. This was done by laying a board across the top of the photographer's arc-lamp. The lamp was carried about and raised and lowered during the exposure to prevent the formation of sharp shadows.

Sometimes a perfectly plain tone on the wall is the right thing, as in Figures 7 and 8, where it forms a good background for the severely simple modern-style furniture. In making these two photographs the camera was set unusually high and close to the subjects in order to produce the angularity of composition that is effective in showing these severe furniture pieces, and that is a characteristic of many of the paintings belonging to the same style as the furniture. This manner of composition seems to be appropriate for use in a photograph of modern-style furniture.

Fig. 9. An effect obtained by throwing the artificial light upon the wall back of the camera



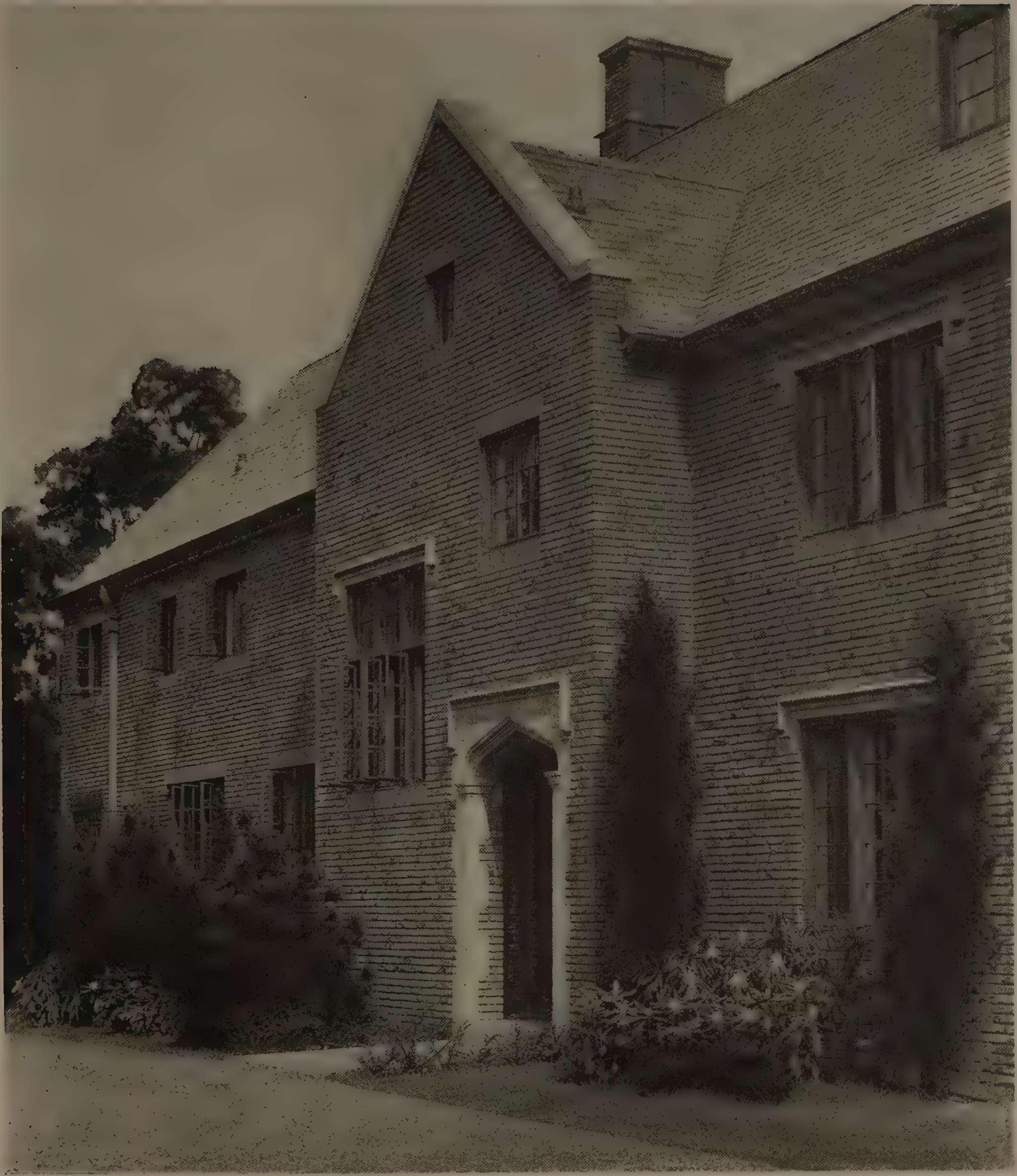
F. M. Demarest

Direct lighting would have killed the delicate gradations of tone in the wall-paper

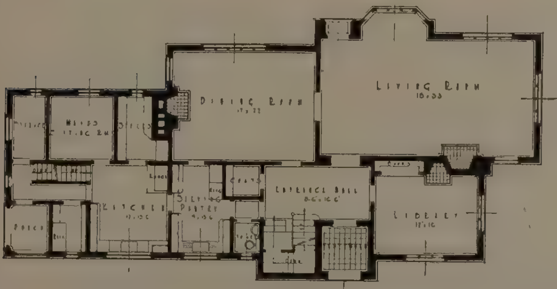
A very interesting problem was presented by the room shown in Figure 9. To judge by the pictures that had been made, it was a hopeless case, impossible to photograph well. The wall, which was covered with a wall-paper in *stria* weave effect of delicate, opalescent coloring, came out a blank white in these photographs. The recessed mirror, with its dressing cabinets, was dull, uninteresting, and totally lacking in depth and perspective. The picture shown as Figure 9 was taken by throwing the light from the portable arc-lamp strongly on the wall back of the camera, from which it was reflected. This gave the broad, soft lighting that was needed to bring out the delicate weave effect of the wall-paper and to hold a suggestion of color. It also gave the mirror its proper degree of importance, for the strongly illuminated wall appeared in the reflection with an accented brilliance.

The architect's trained appreciation of values in light and shade, his knowledge of pictorial composition and of design, stand him in good stead when he turns his attention to architectural photography. The possibilities of the photographer's equipment gradually become apparent; also its deficiencies, and the latter are made up for by commandeering a cracker-box cover or any other available object that may serve the purpose of a movable screen for controlling the lighting.

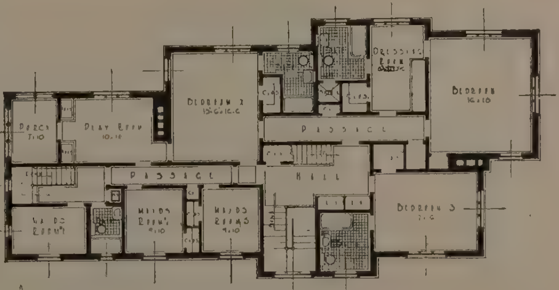
Enough examples have been shown and discussed here to indicate the nature of the procedure in a general way. The architect will develop his own technic as a director and solve his problems when he faces them. Each case presents its own peculiar combination of conditions, its own opportunities for doing something interesting.



Photographs by J. C. Maugans



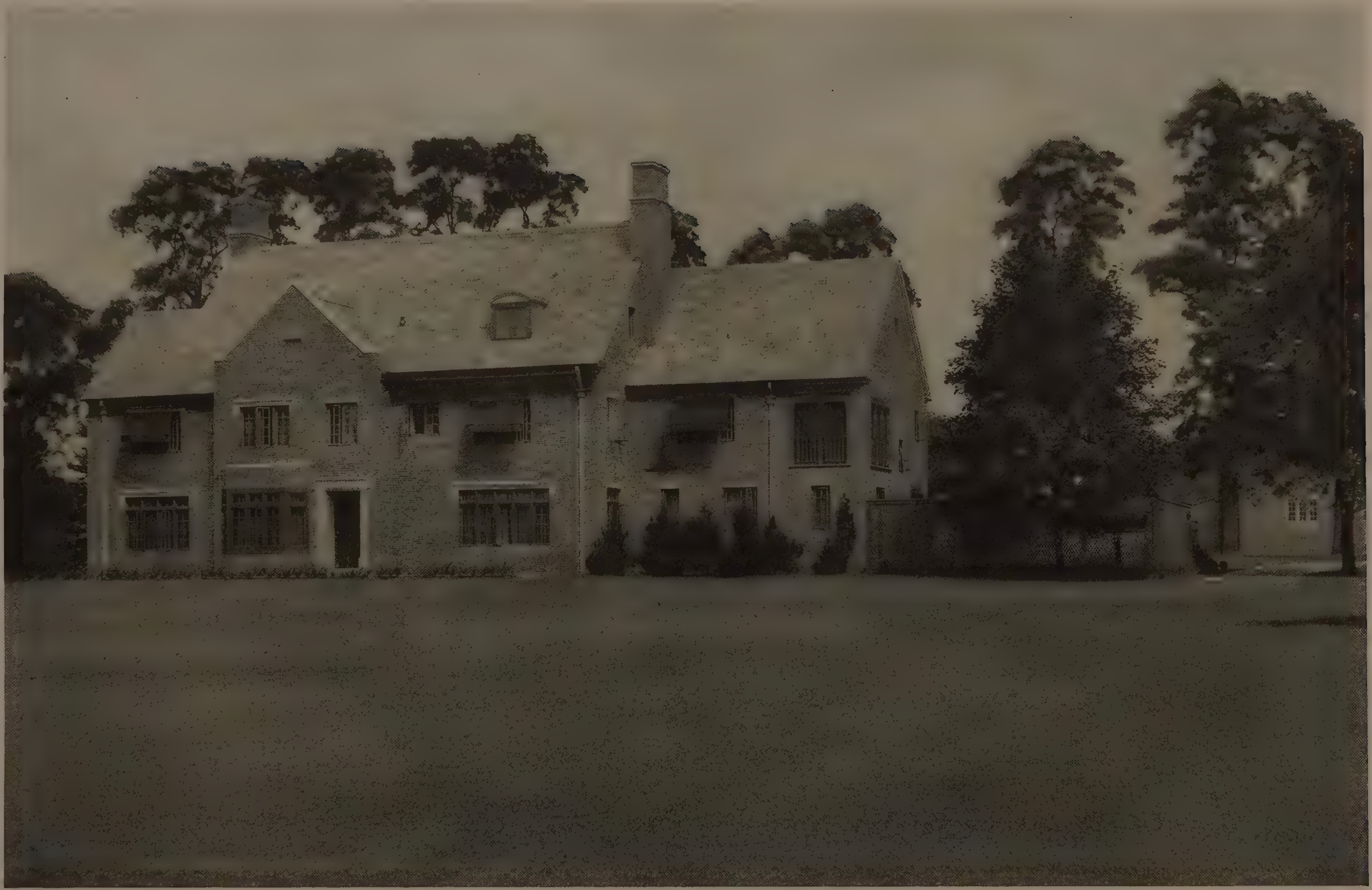
First Floor Plan



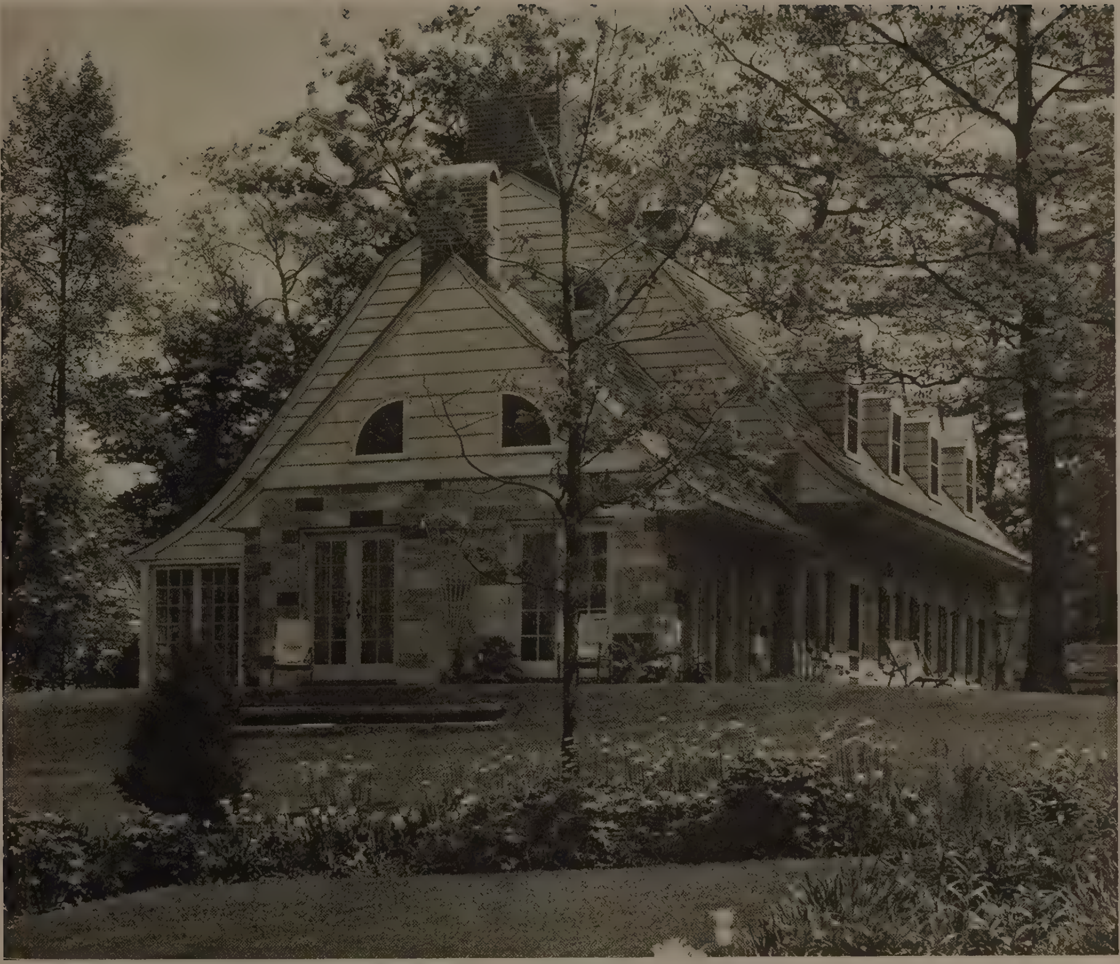
Second Floor Plan

House of Edwin Stewart, 3d, Rumson, N. J.

ALFRED BUSSELLE, ARCHITECT



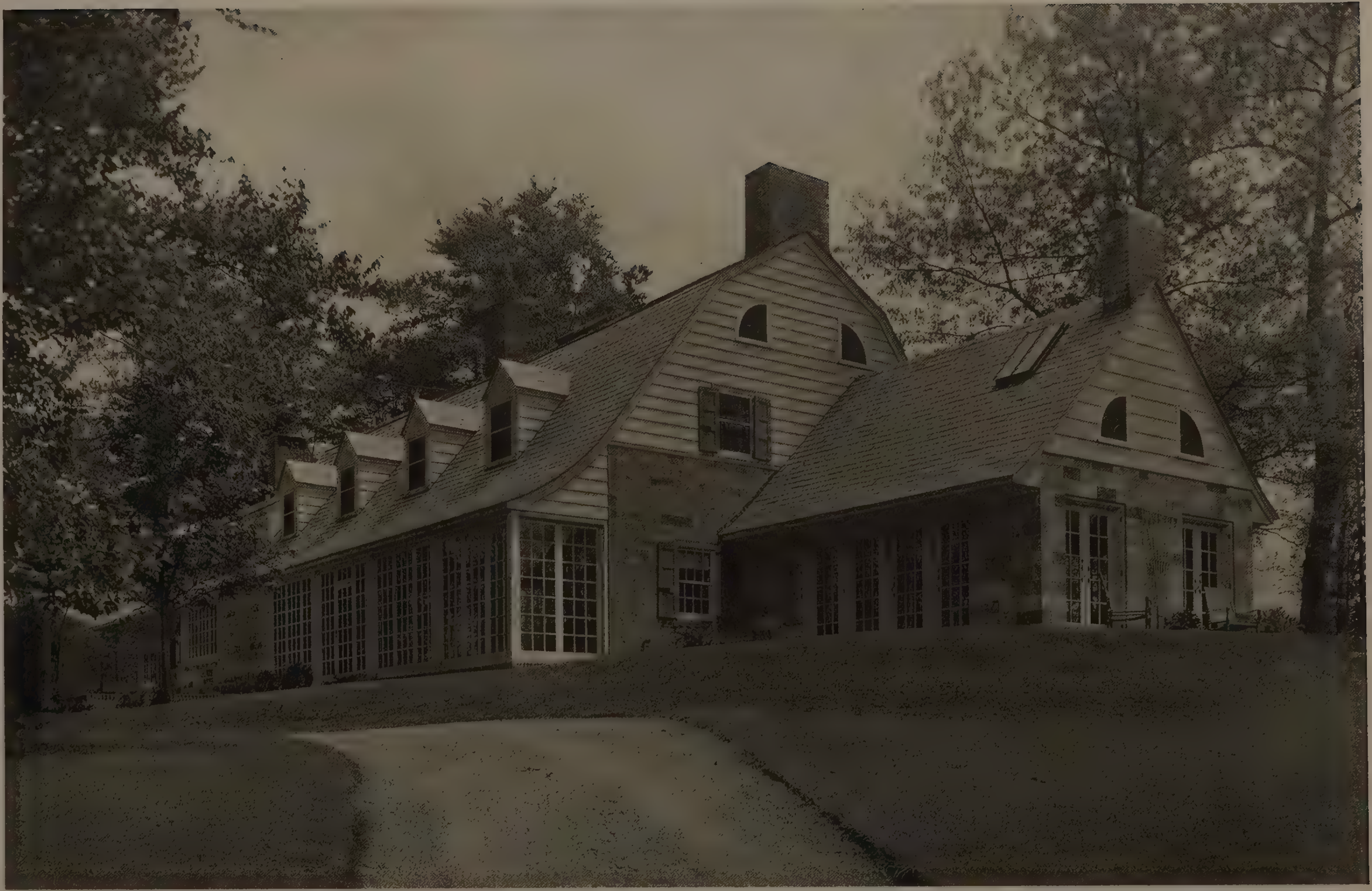
House of Edwin Stewart, 3d, Rumson, N. J. ALFRED BUSSELLE, ARCHITECT



House of Reginald Halladay,
Cresskill, N. J.

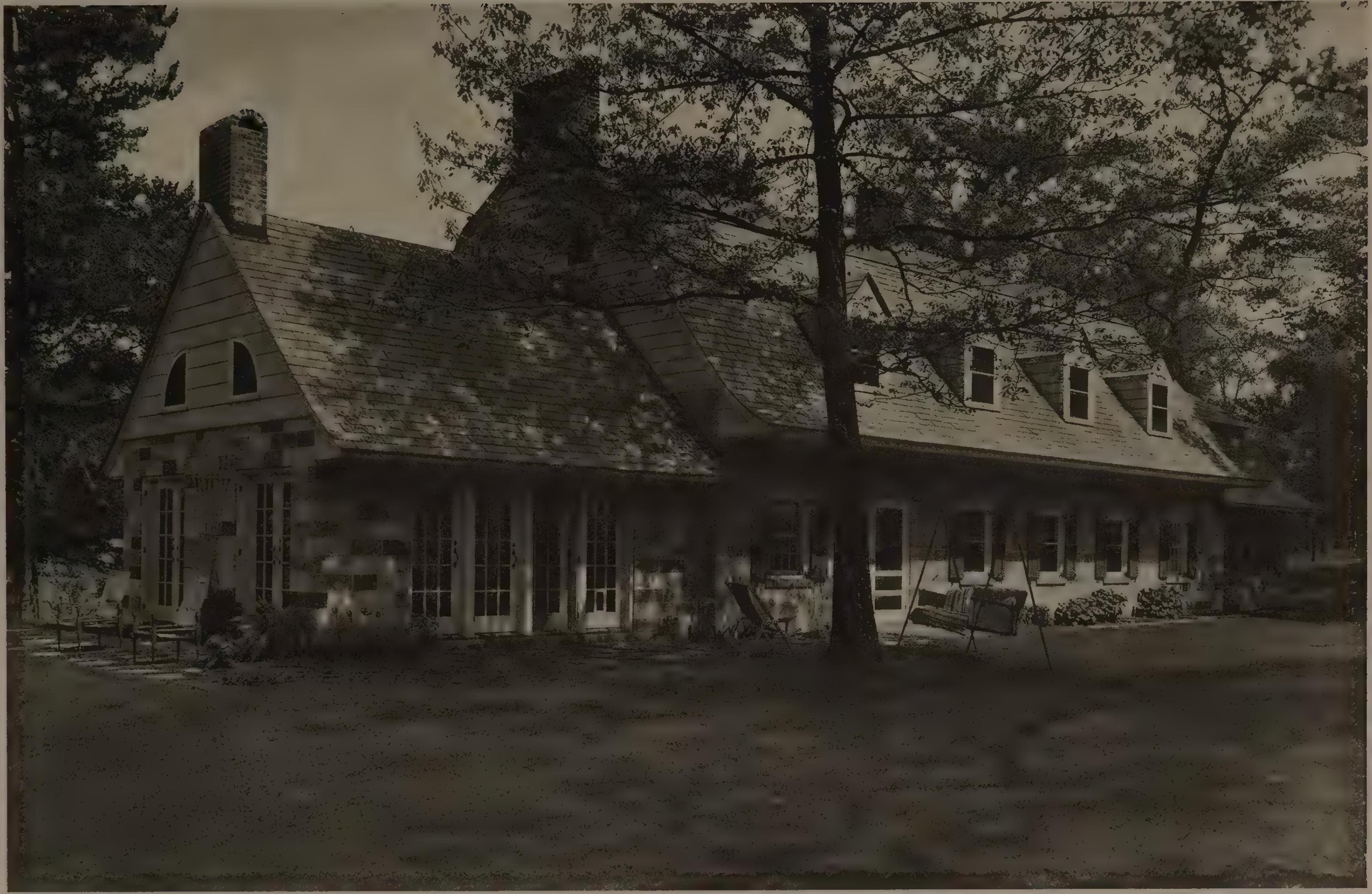
FREDERICK T. WARNER, ARCHITECT

Originally the house consisted of a small part of the present main block, designed by Frank J. Forster, Architect



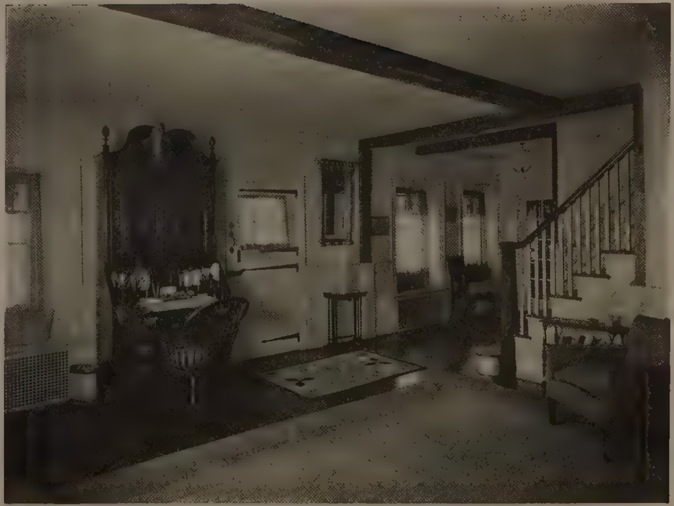
House of Reginald Halladay, Cresskill, N. J.

FREDERICK T. WARNER, ARCHITECT

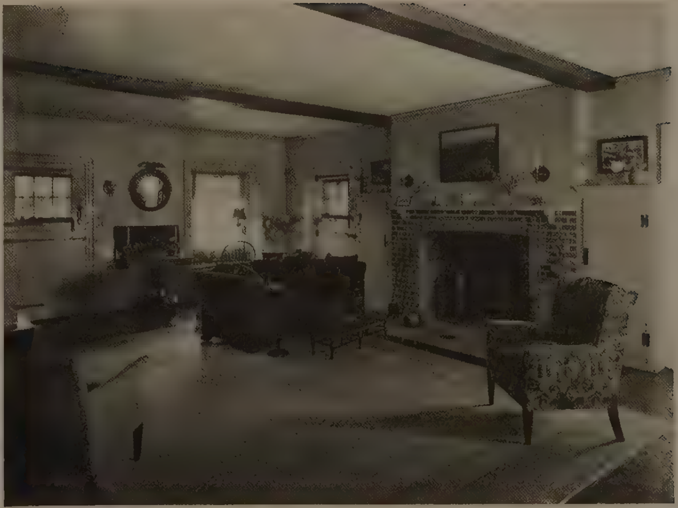


House of Reginald Halladay, Cresskill, N. J.

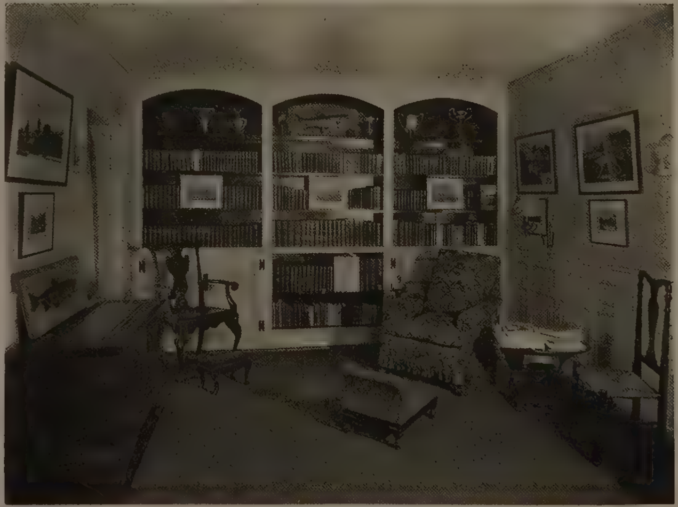
FREDERICK T. WARNER, ARCHITECT



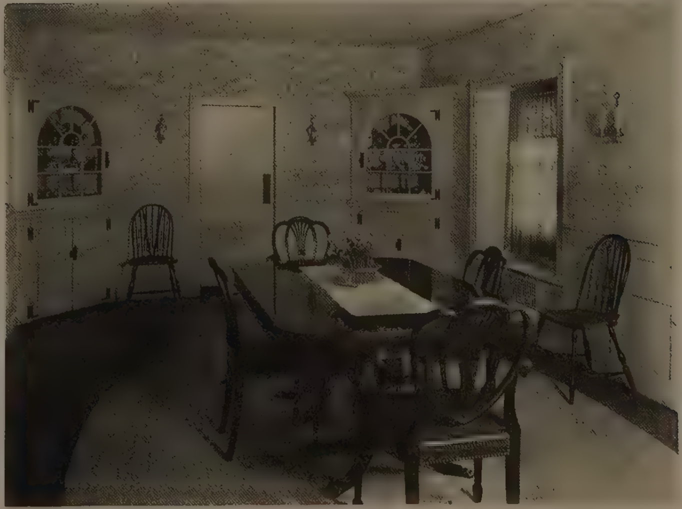
Living-room



Living-roon

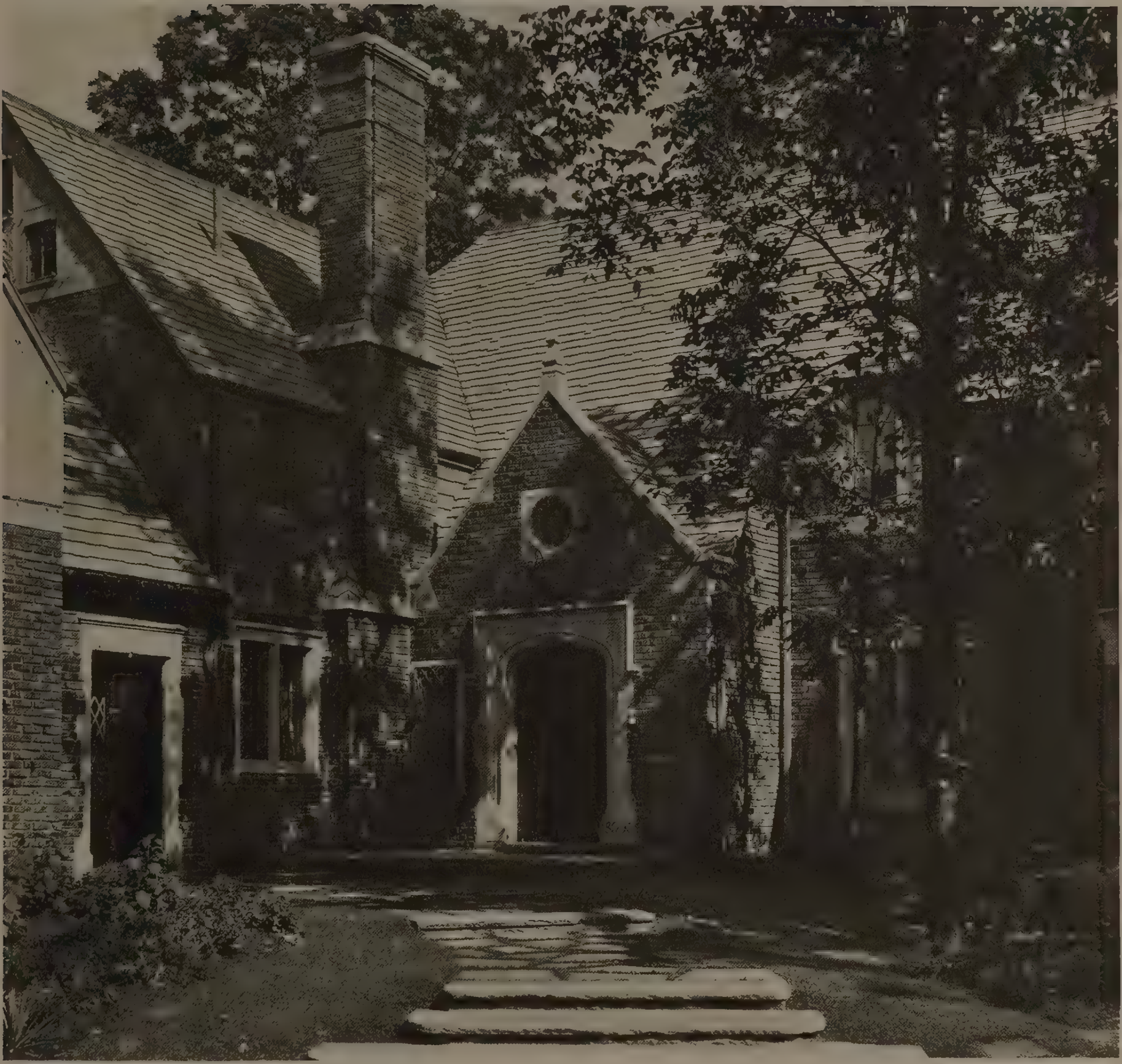


Den

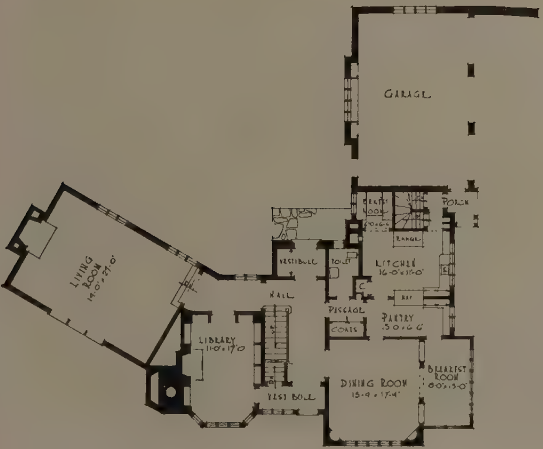


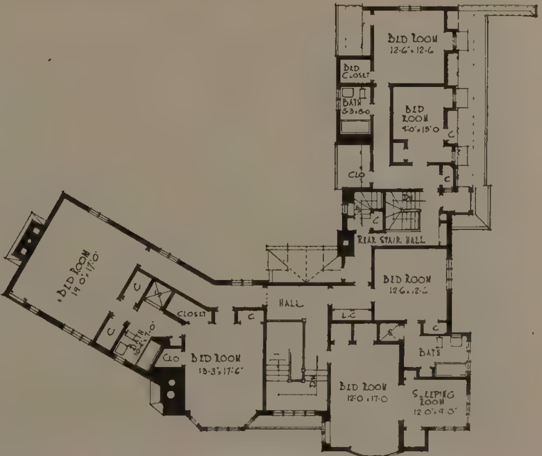
Dining-roon

House of Reginald Halladay, Cresskill, N. J. FREDERICK T. WARNER, ARCHITECT

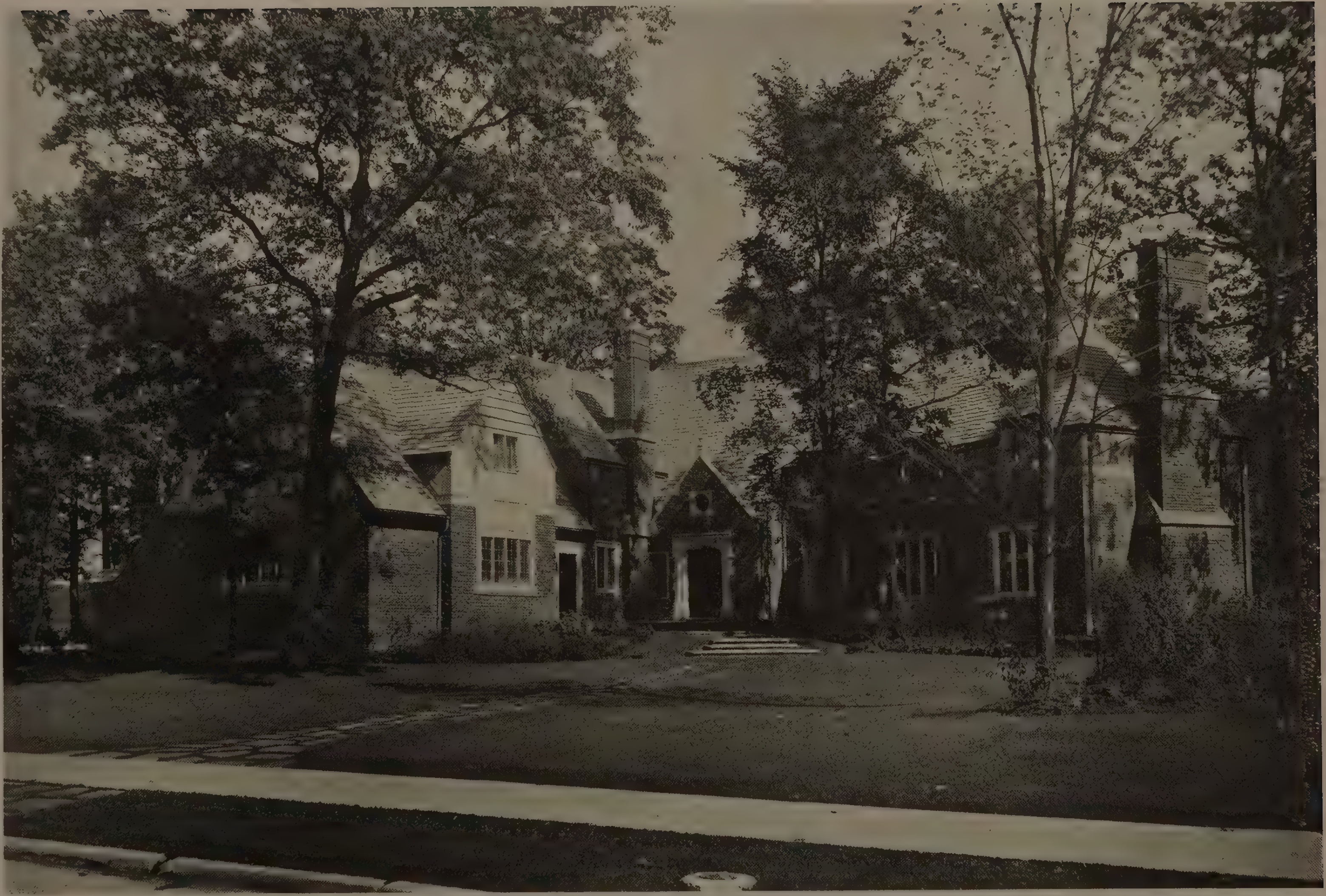


Photographs by Thomas Ellison



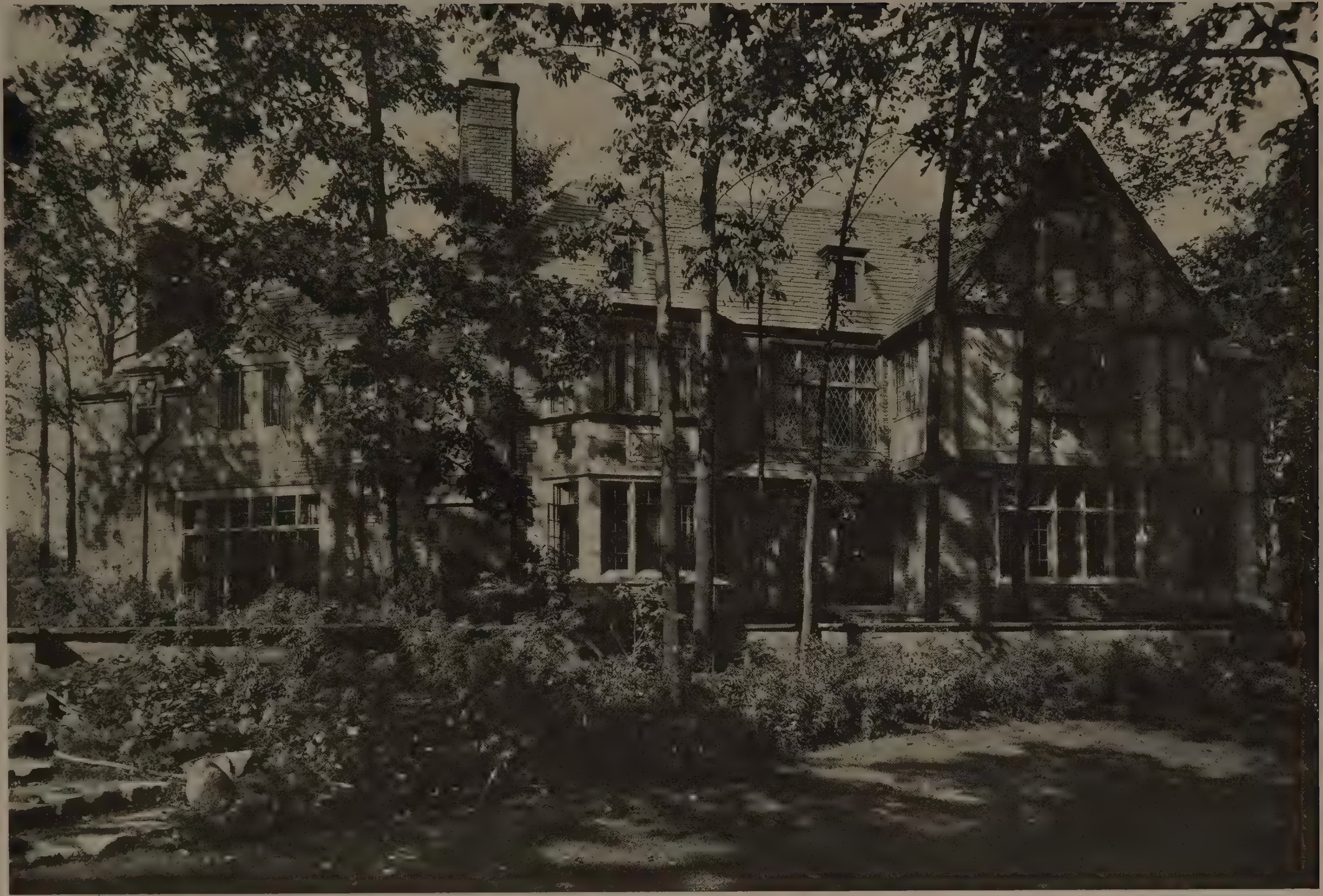


HOUSE OF WILLIAM C. DEVEREAUX, DETROIT, MICH. J. IVAN DISE, ARCHITECT



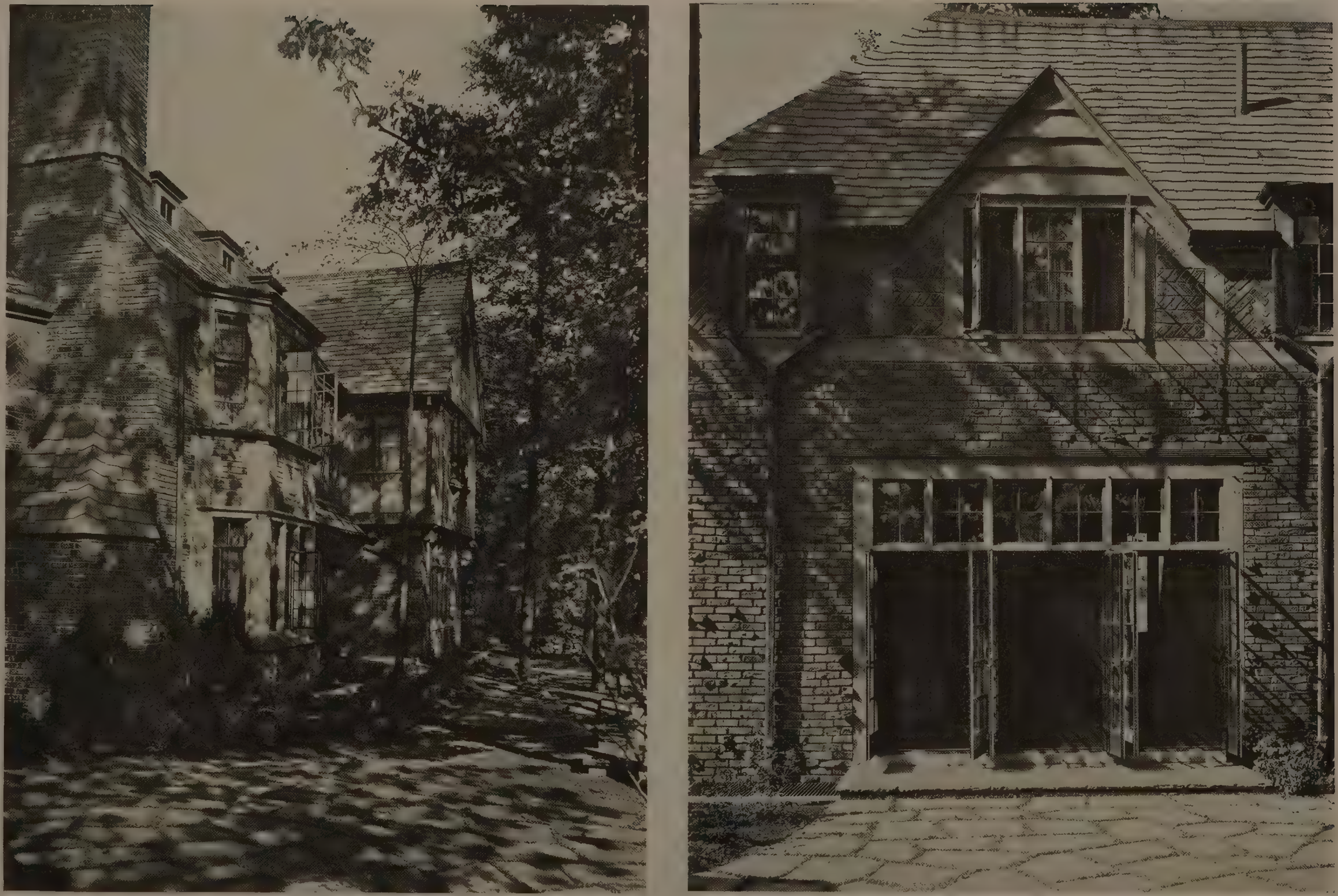
House of William C. Devereaux, Detroit, Mich.

J. Ivan Dise, Architect

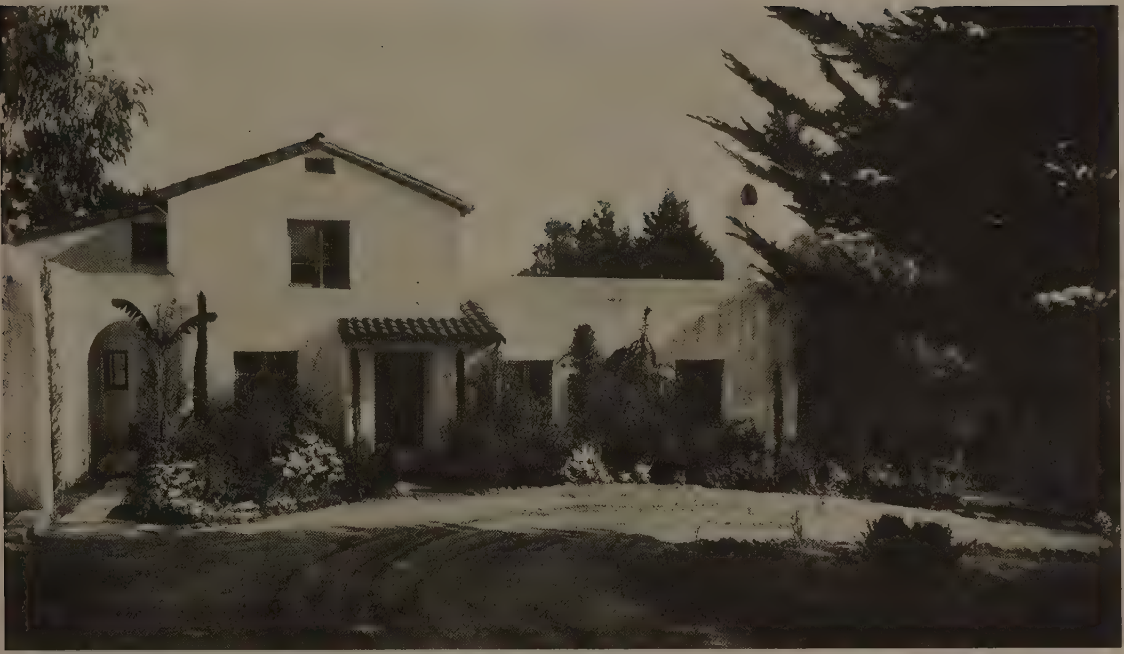


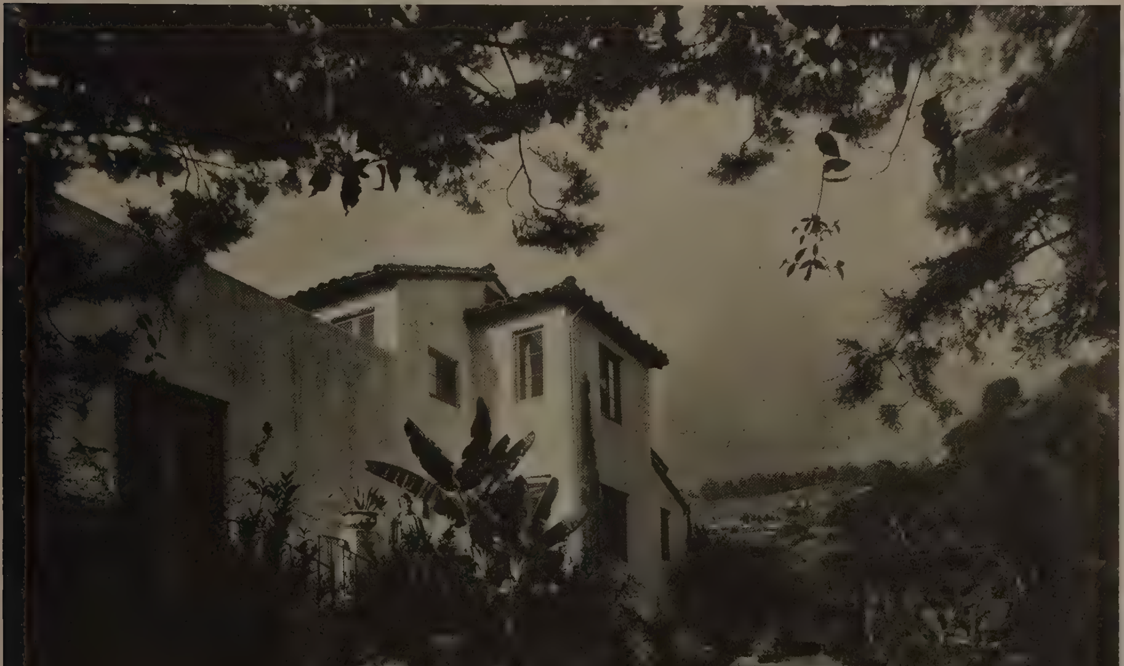
HOUSE OF WILLIAM C. DEVEREAUX, DETROIT, MICH.

J. IVAN DISE, ARCHITECT

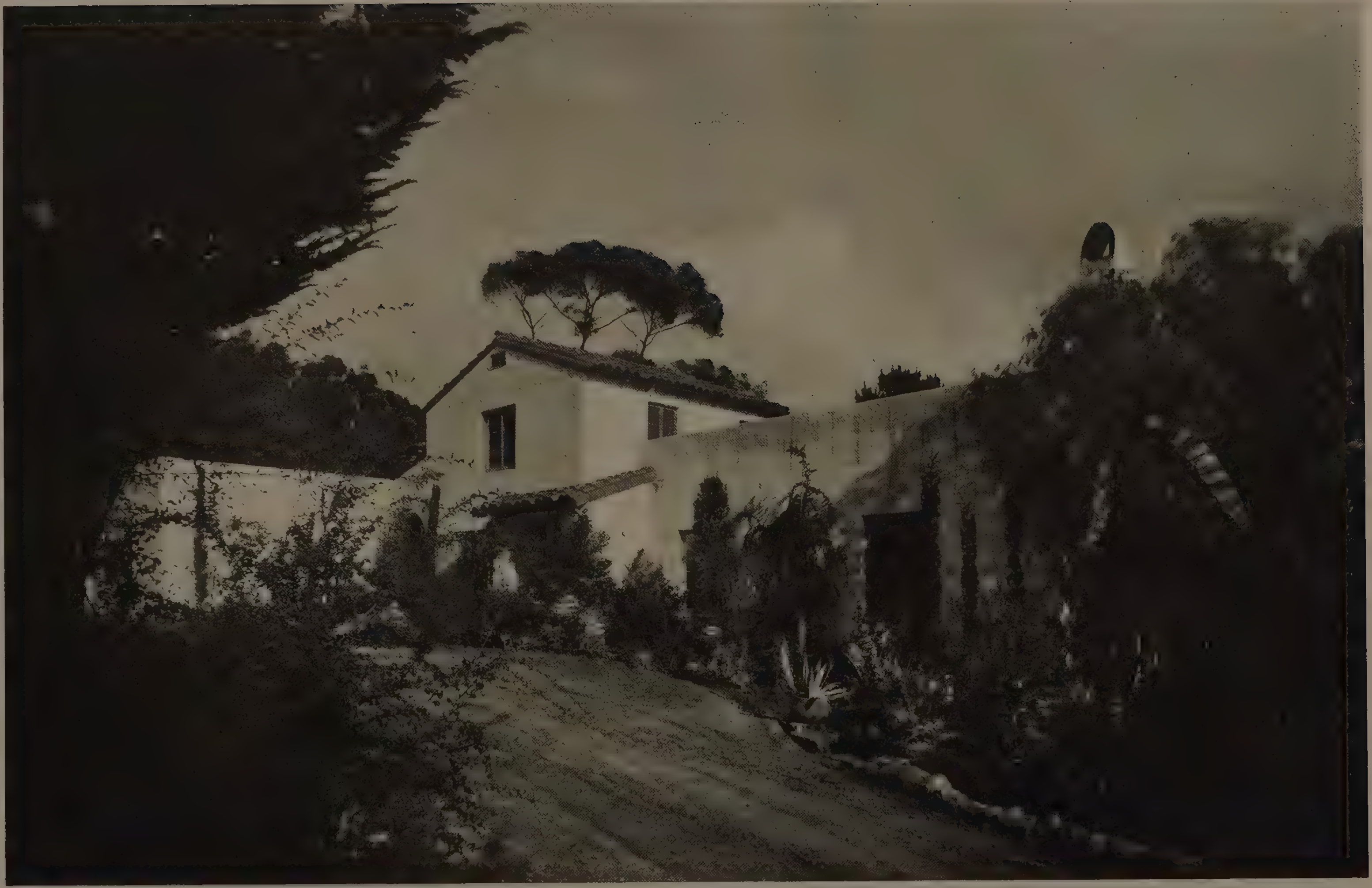


House of William C. Devereaux, Detroit, Mich. J. IVAN DISE, ARCHITECT

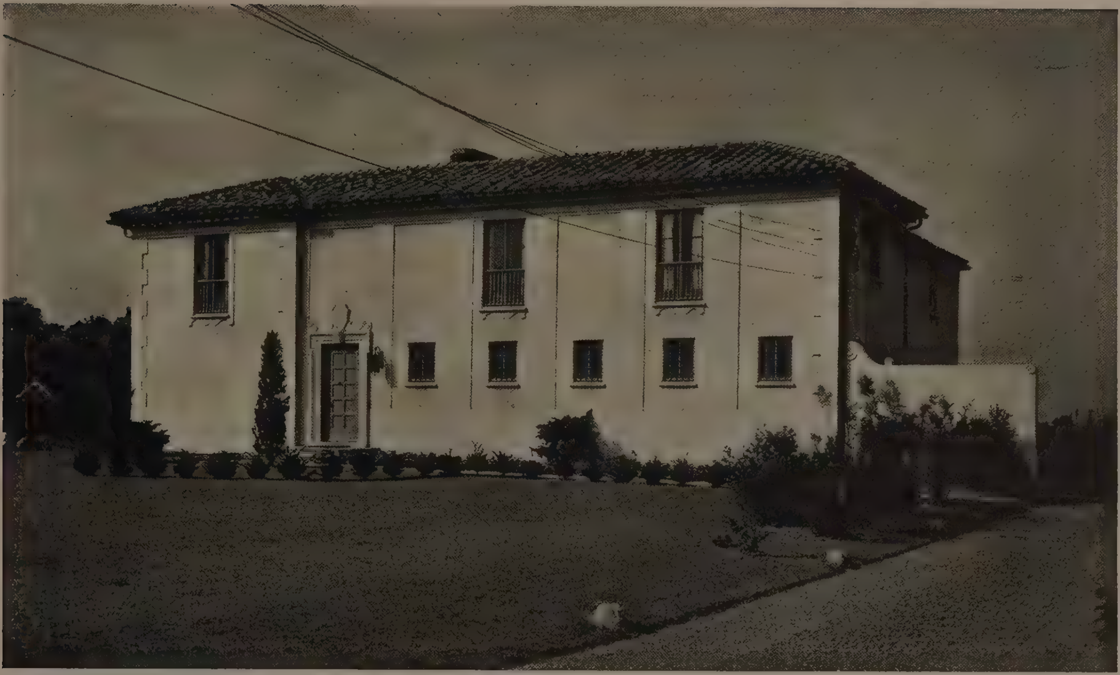




House of Mrs. Grace K. Bingham, Santa Barbara, Calif.
CARLETON MONROE WINSLOW, ARCHITECT



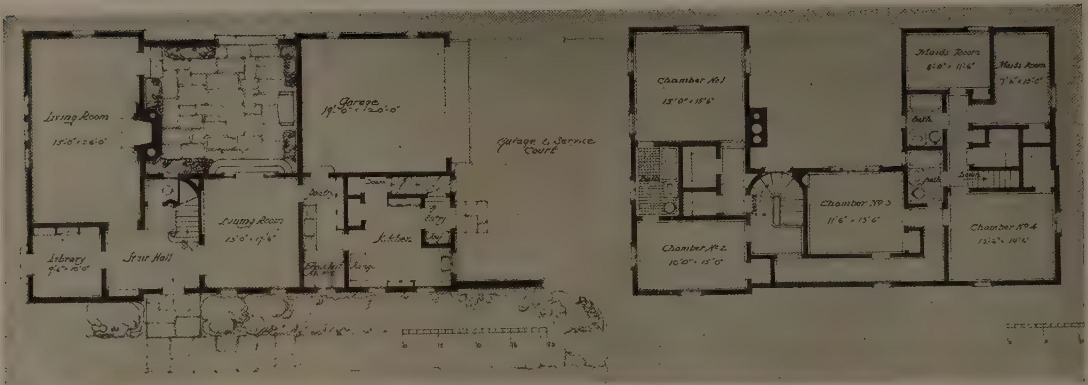
House of Mrs. Grace K. Bingham, Santa Barbara, Calif. · Carleton Monroe Winslow, Architect

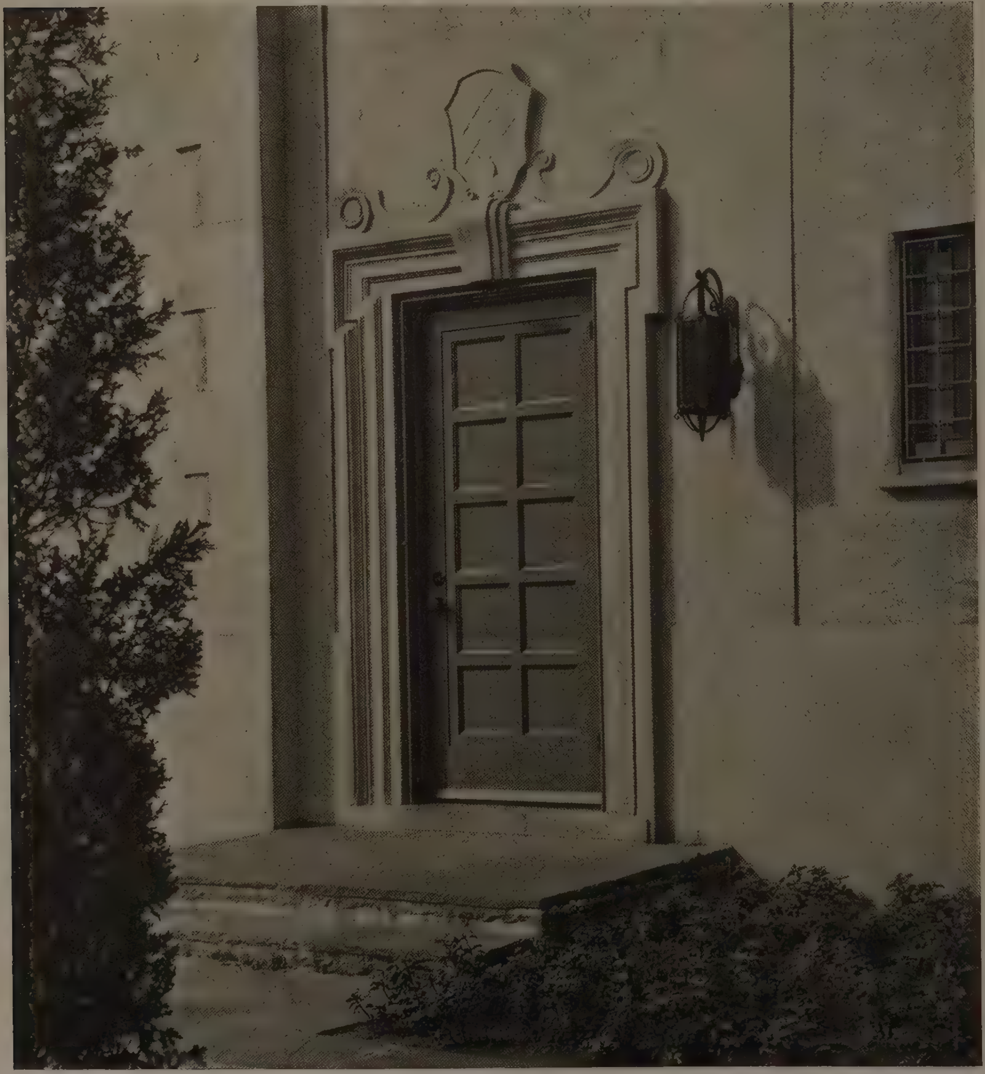


The Entrance Front

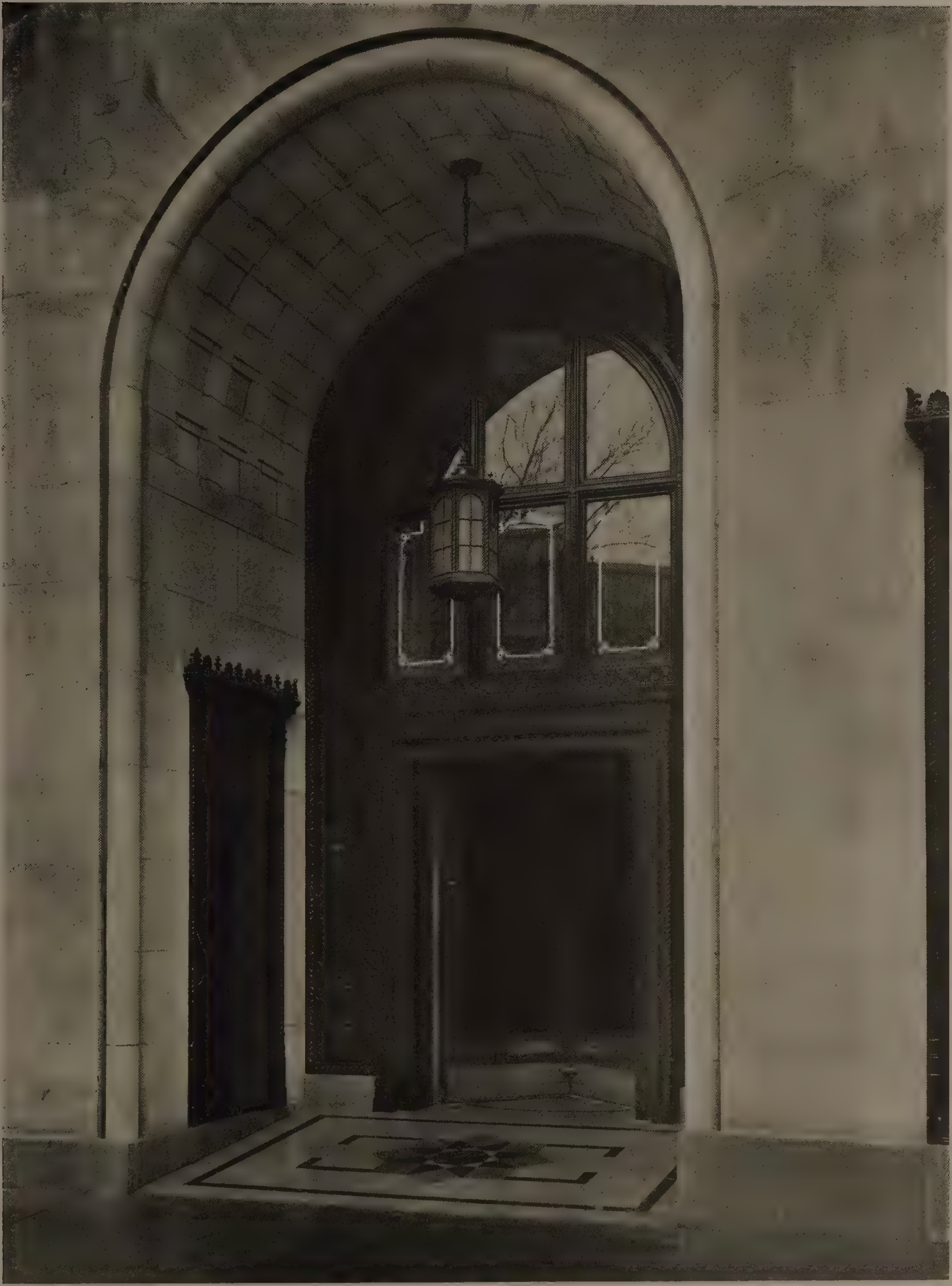
The Garden Front

House of Frank Braucher, Scarsdale, N. Y. Eugene J. Lang, Architect



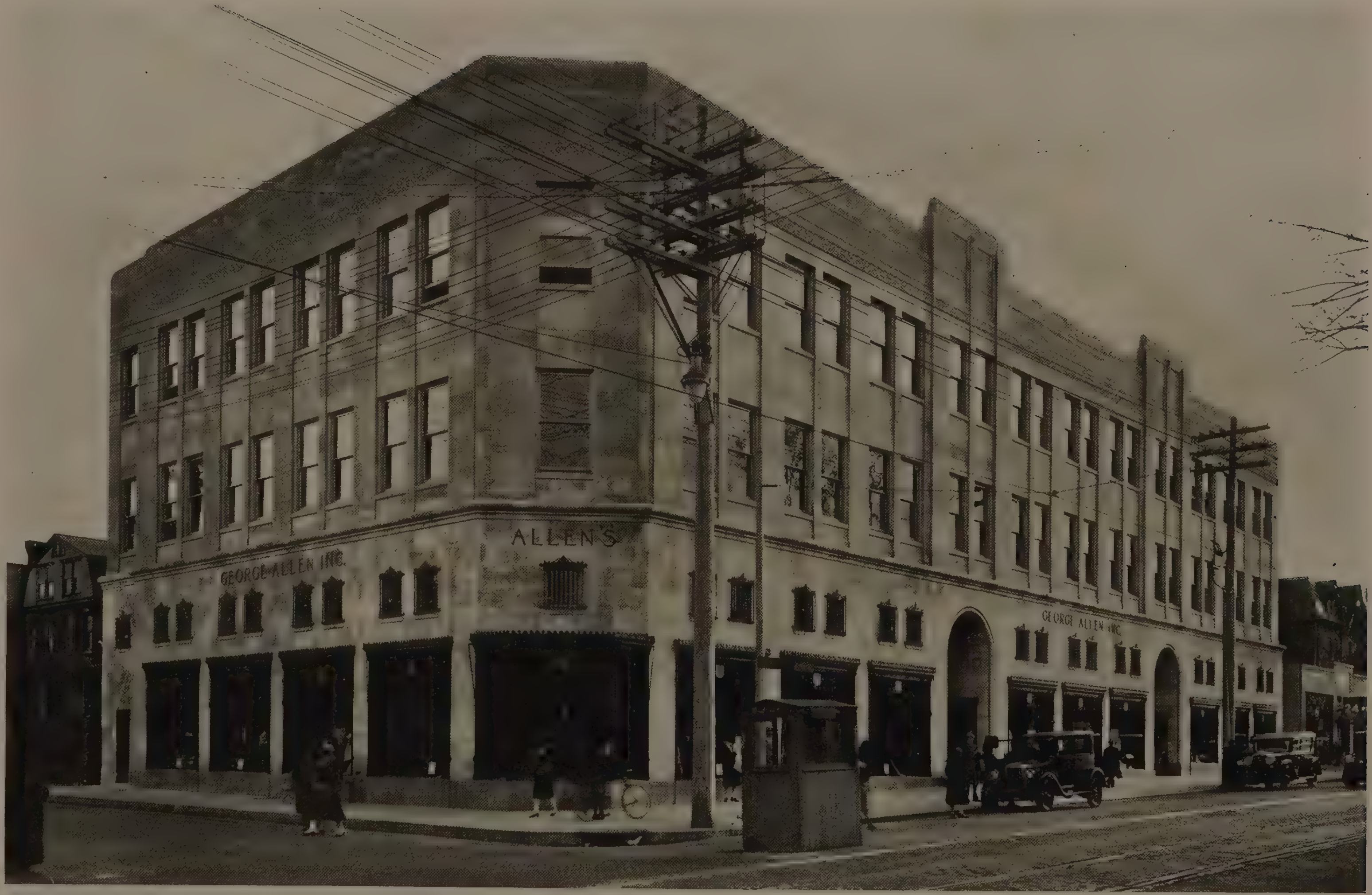


House of Frank Braucher, Scarsdale, N. Y. EUGENE J. LANG, ARCHITECT



Department-Store, George Allen, Inc.,
Germantown, Pa.

Clarence E. Wunder,
Architect and Engineer



Department-Store, George Allen, Inc., Germantown, Pa.

clarence e. wunder, architect and engineer

Architecture's Portfolio of Balconies

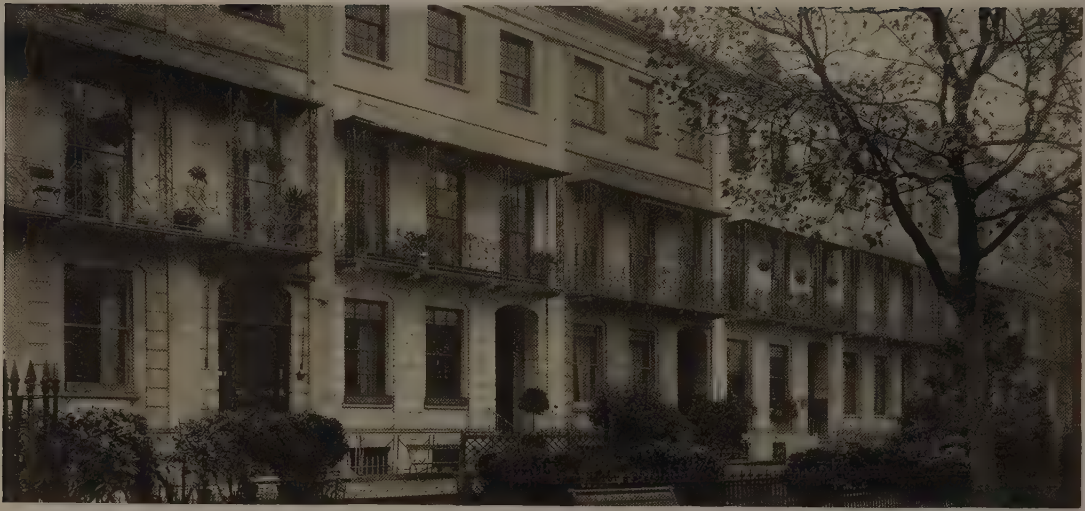
Subjects of Previous Portfolios

Panelling of the English Types—	Jan., 1927
Stairway Details (Georgian, Early American, etc.)—	Feb., 1927
Stone Masonry Textures—	Mar., 1927
English Chimneys—	Apr., 1927
Fanlights and Other Overdoor Treatments—	May, 1927
Textures of Brickwork—	June, 1927
Iron Railings—	July, 1927
Door Hardware—	Aug., 1927
Palladian Motives—	Sept., 1927
Gable Ends—	Oct., 1927
Colonial Top-Railings of Wood—	Nov., 1927
Circular and Oval Windows (Classic and Renaissance)—	Dec., 1927
Built-in Bookcases—	Jan., 1928
Chimney Tops—	Feb., 1928
Door Hoods—	Mar., 1928
Bay Windows—	Apr., 1928
Cupolas—	May, 1928
Garden Gates—	June, 1928
Stair Ends—	July, 1928

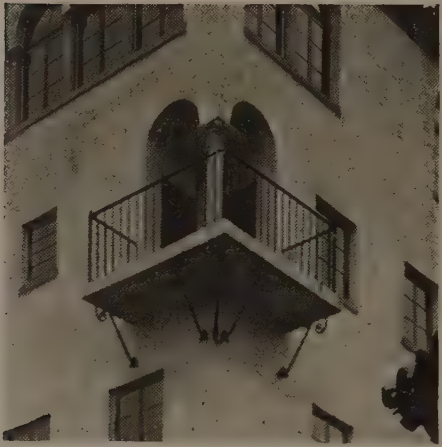
SUBJECTS IN PREPARATION FOR FUTURE ISSUES

- Arcades and Colonnades
- Cornices
- Balustrades
- Belt Courses
- Brick, Moulded
- Corbels
- Corner Cupboards
- Clock Towers
- Elevator Doors
- Driveway Entrances
- Fences
- Finial Urns
- Spanish Fireplaces
- Garden Pools
- Garden Shelters
- Organ Cases
- Oriel Windows
- Overmantel Treatments
- Niches
- Quoins
- Iron Railings
- Rain-Conductor Heads
- Stucco Textures
- Treillage
- Verandas
- Weathervanes

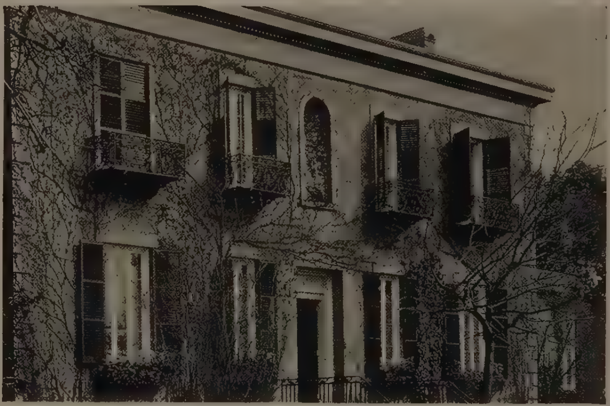
Photographs showing interesting examples under any of these headings will be welcomed by the Editor



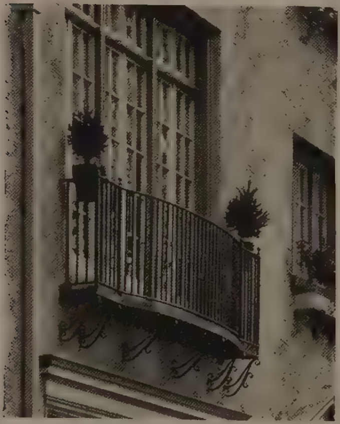
CHELTENHAM, GLOUCESTERSHIRE



ADDISON MIZNER



BARTOW MANSION, NEW YORK



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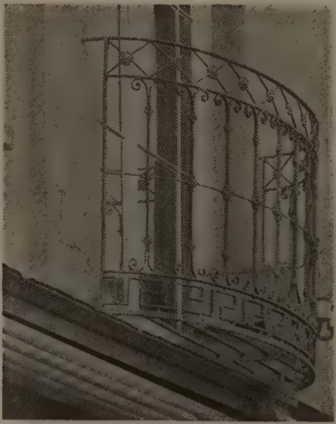
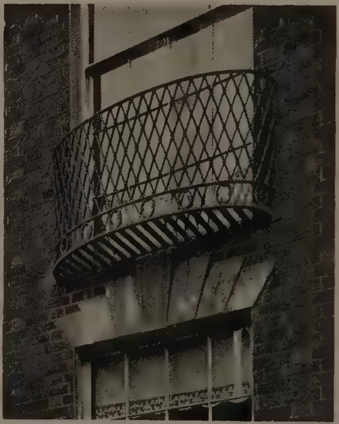
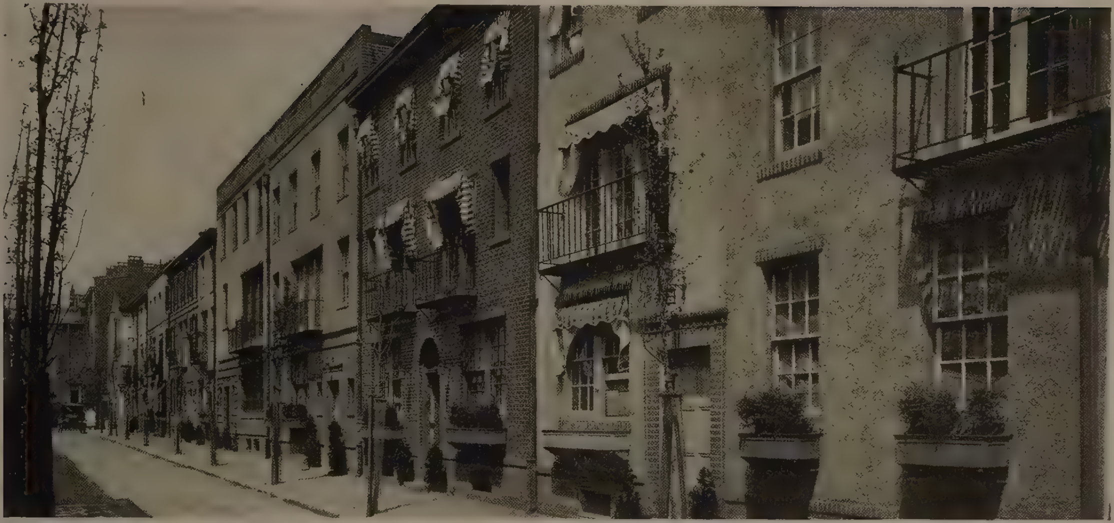


TAUNTON, SOMERSETSHIRE



PERSHORE, WORCESTERSHIRE



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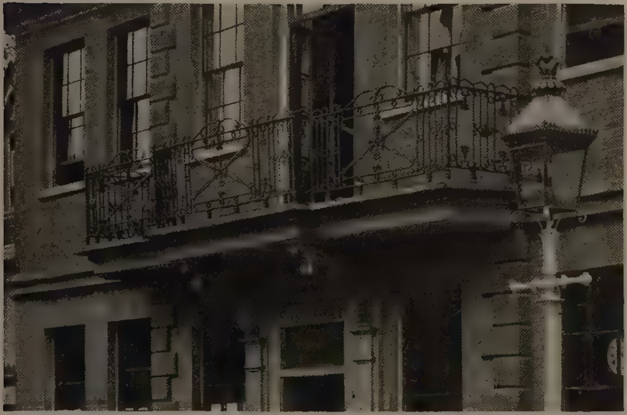

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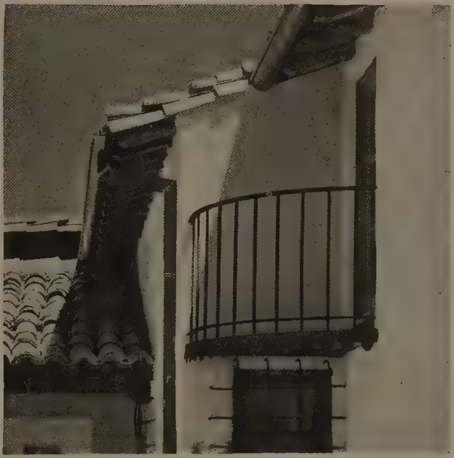
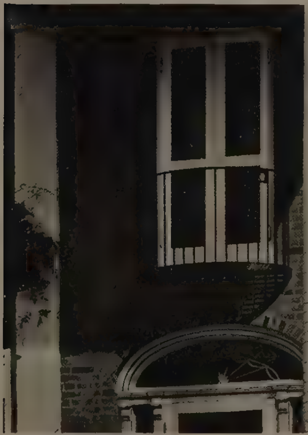
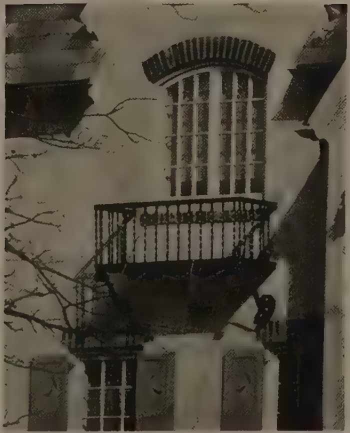


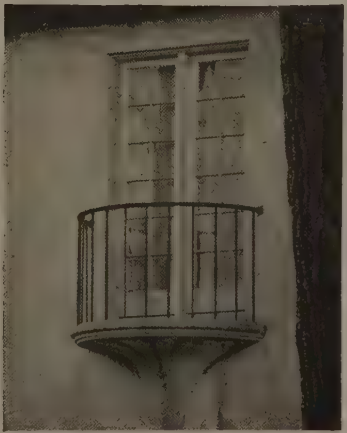
WILLIS POLK



PEABODY, WILSON & BROWN



WARREN, KNIGHT & DAVIS



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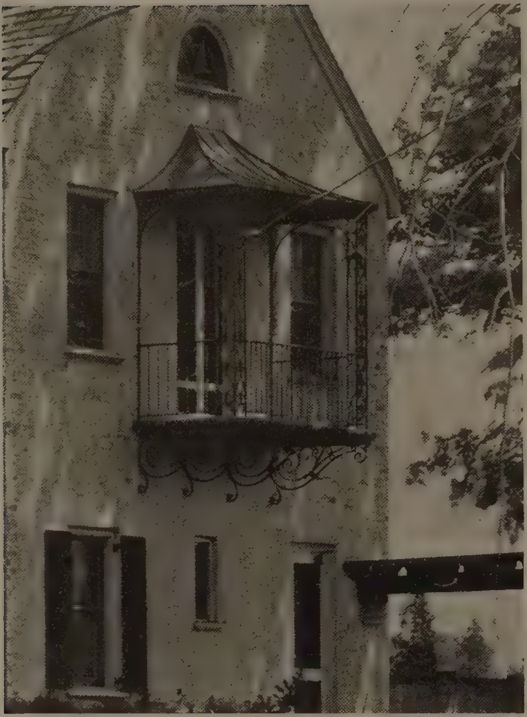

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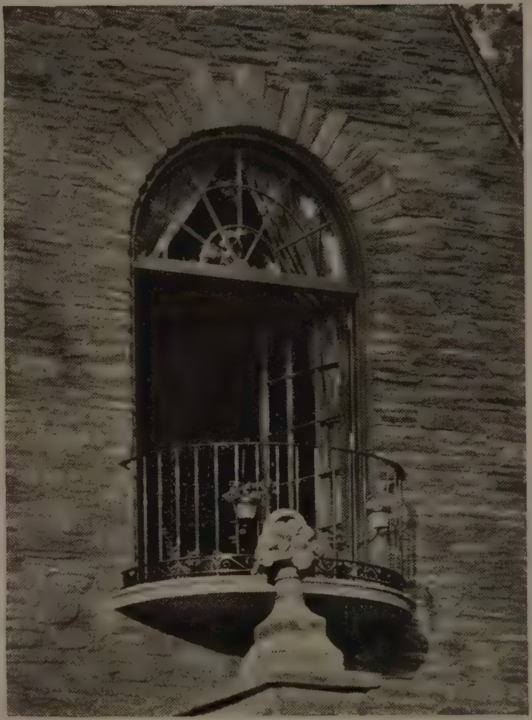
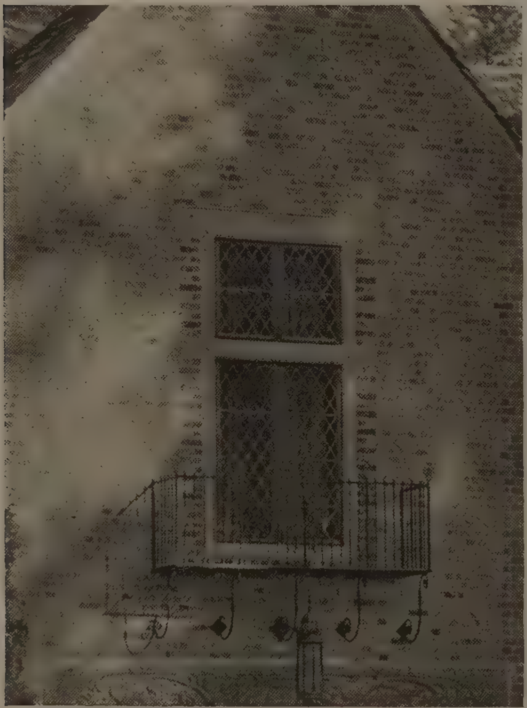


WILLING, SIMS & TALBUTT



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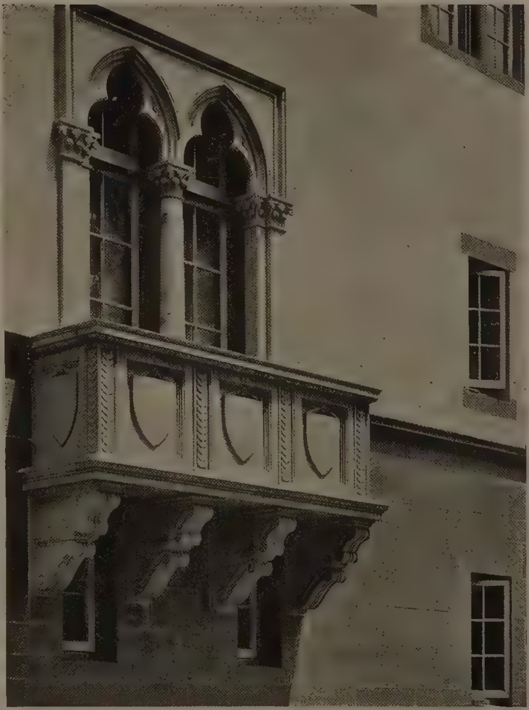

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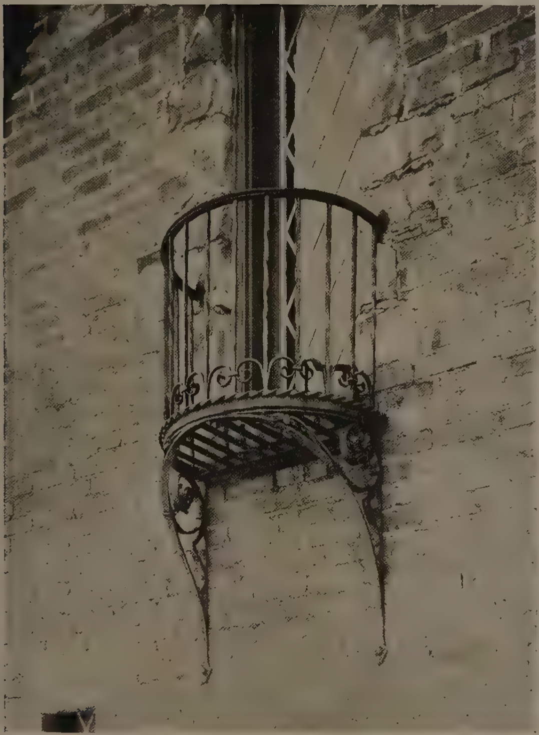

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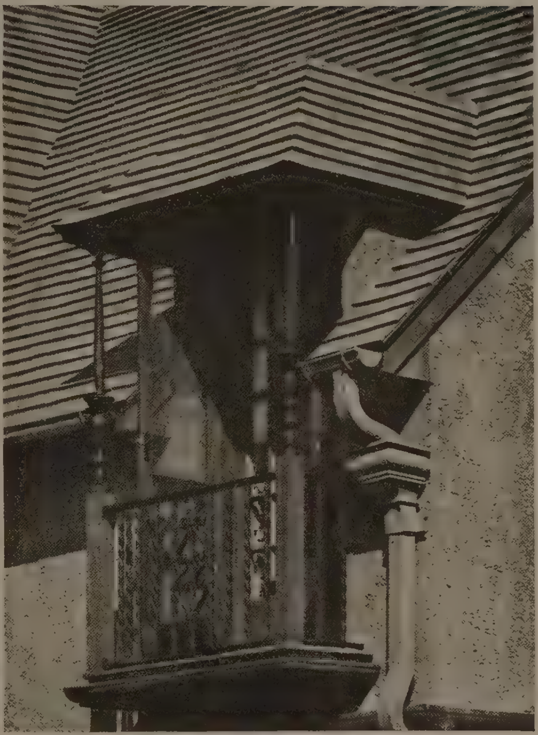
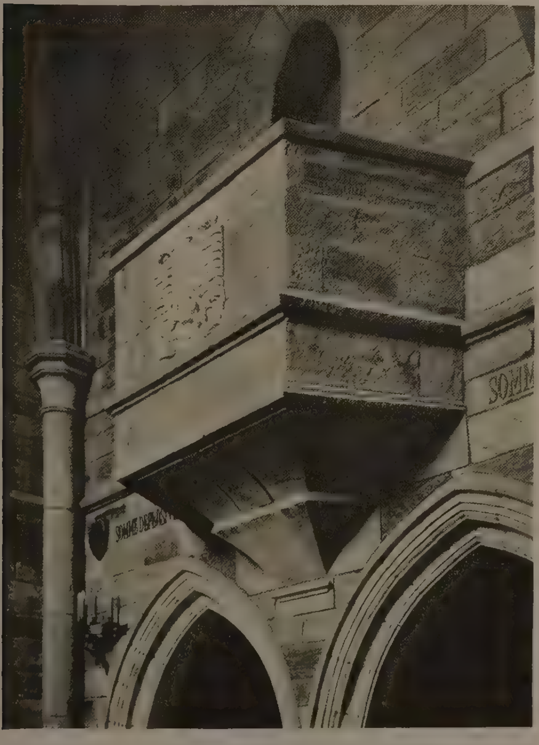
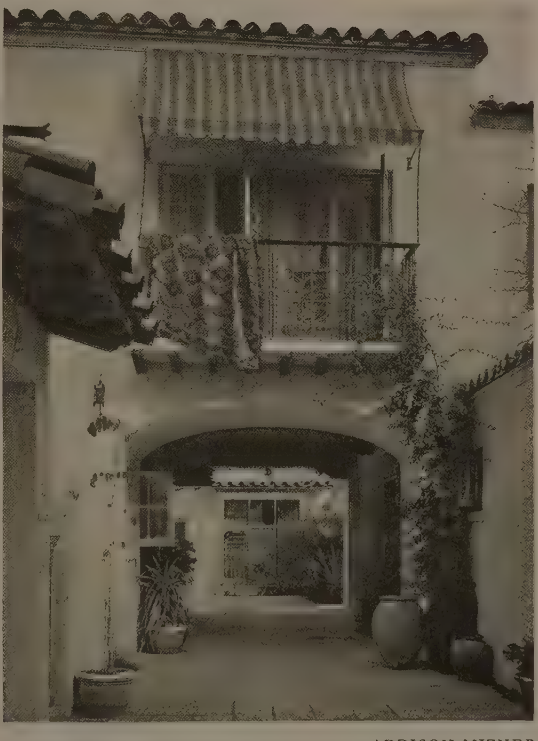


POLHEMUS & COFFIN



WALTER T. KARCHER AND LIVINGSTON SMITH



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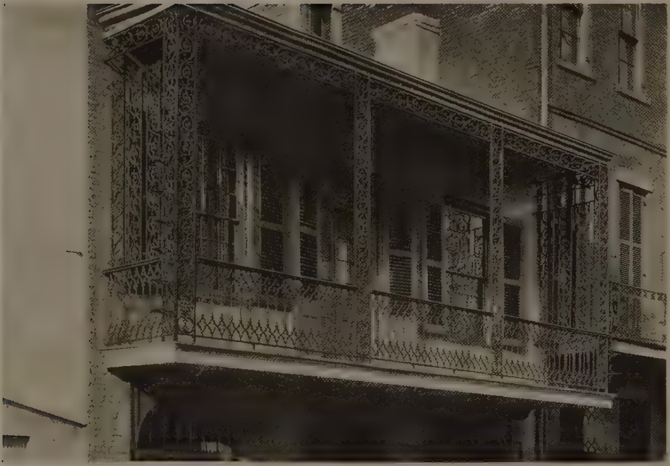
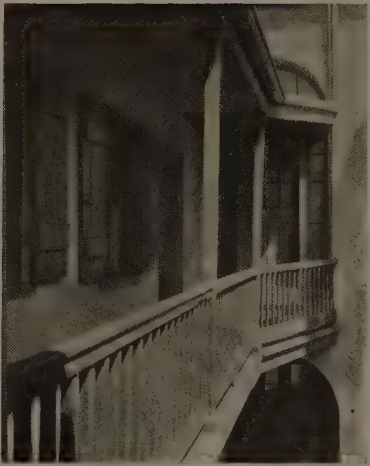
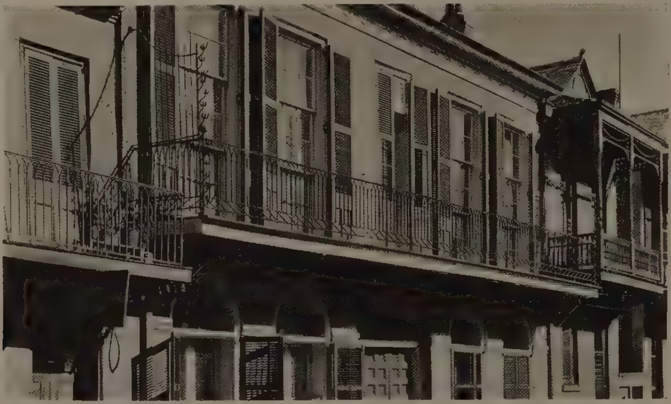


NEW ORLEANS
ALTERATIONS BY
MOISE GOLDSTEIN



NEW ORLEANS
(OLD)

NEW ORLEANS
(OLD)



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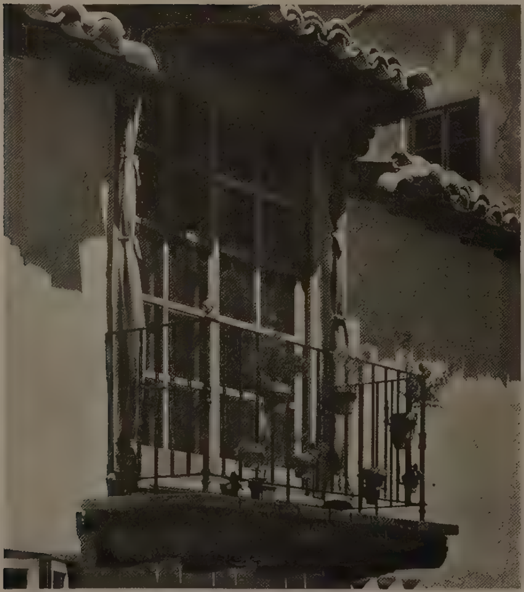
ARMSTRONG
& KOCH

WILLIS POLK



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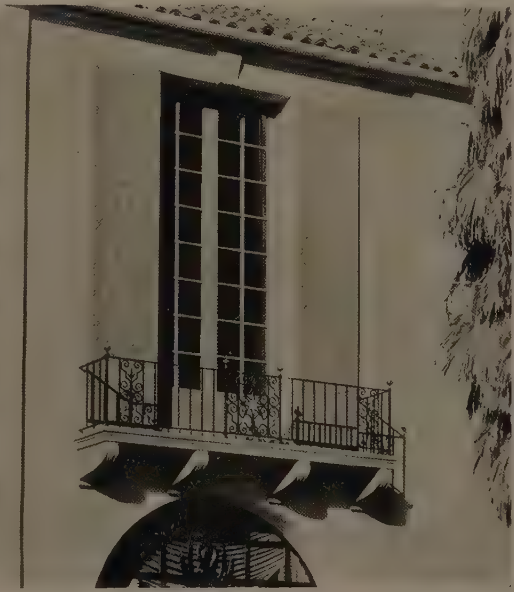

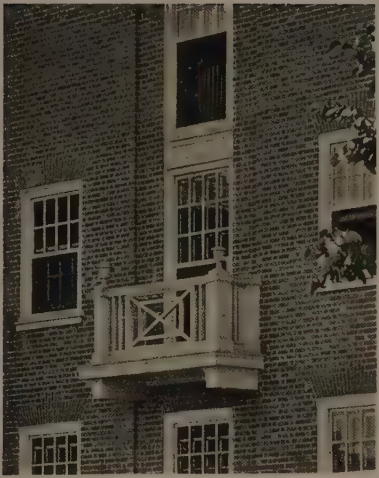

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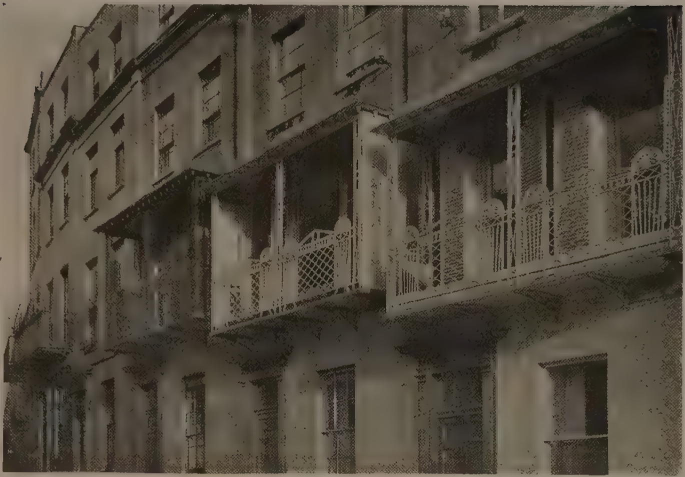
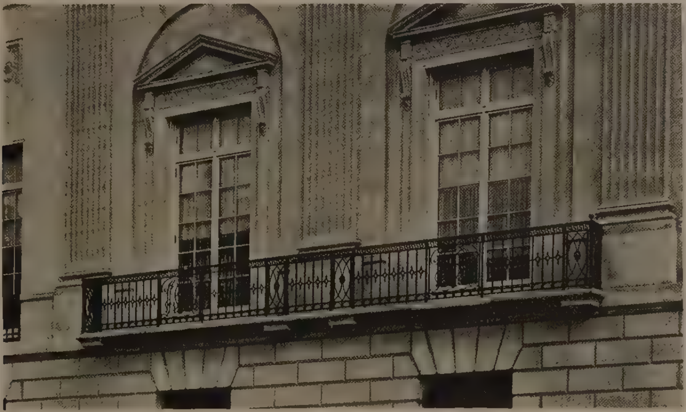


CLIFTON,
GLOUCESTERSHIRE



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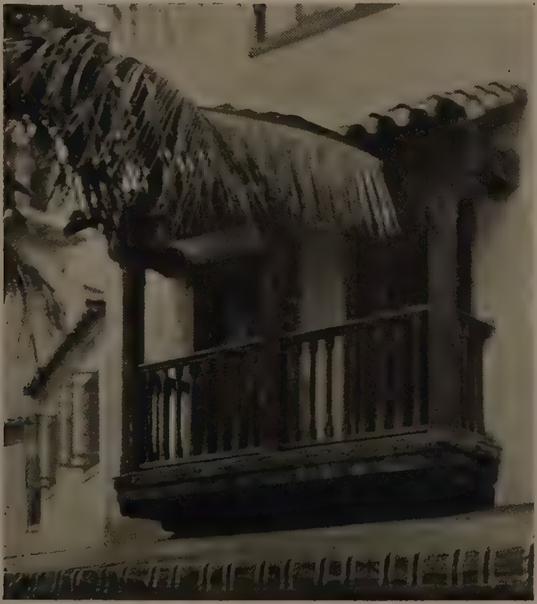
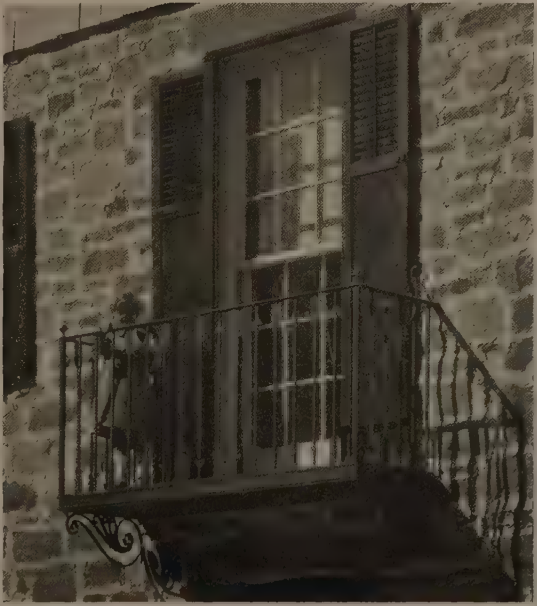
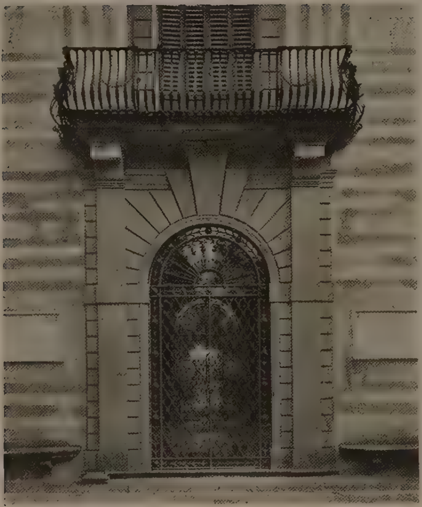
CARRÈRE &
HASTINGS

ADDISON MIZNER



CHARLES H.
HIGGINS





SAN DOMENICO
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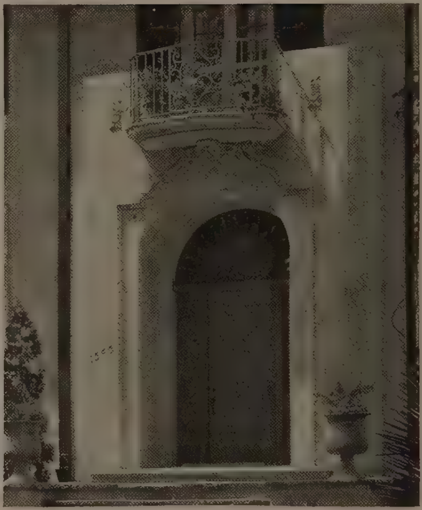

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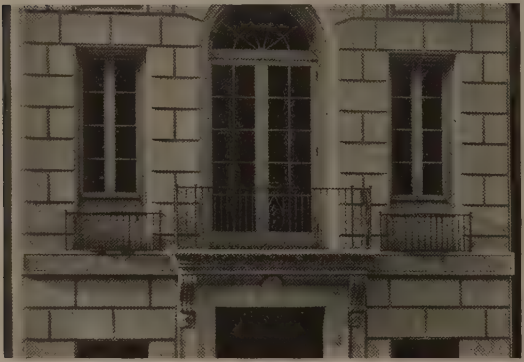

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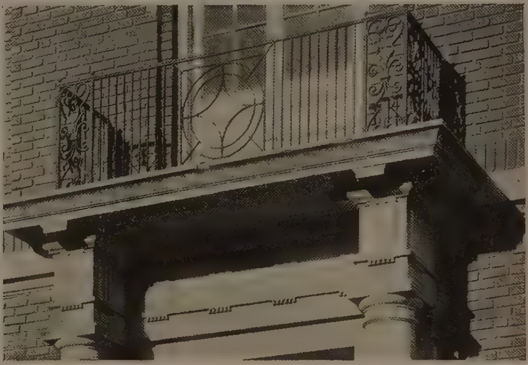
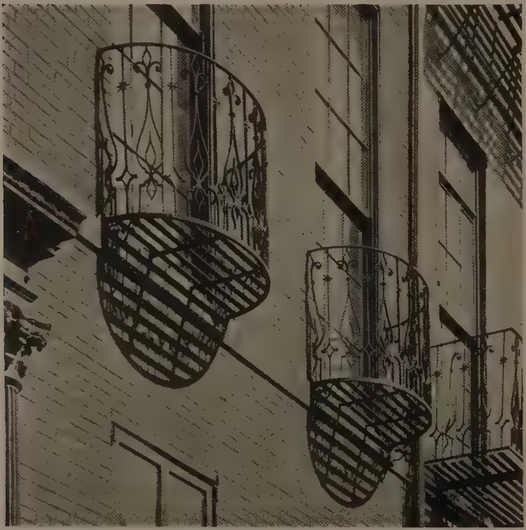
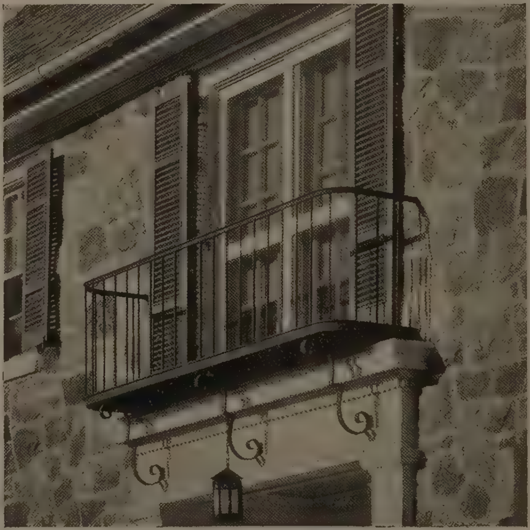


EDWARDS & SAYWARD

PHILADELPHIA, C. 1790



DUNCAN LEE



The Architectural Clinic

ON TAKING BETTER PHOTOGRAPHS

FOR the architect who has "arrived" the problem of good photographs is a simple one. He seldom has a failure, and the prints usually have a certain artistic flavor. True, the cost may be high, but the more "arrived" the architect, the less the consequence of a professional's fee.

For the student-architect, the draftsman-architect, and the architect-architect who finds it expedient to be his own photographer, the problem is a less simple one. He finds photography convenient for recording examples of his own work, and pleasing details or odd bits of ornament when on a trip. Yet his equipment is usually condensed to the bare essentials of a folding camera.

Successful results are a matter of brief but thorough experimentation with various kinds of light for several types of subjects, being old-maidenishly careful to record and retain results.

Probably the most troublesome problem to the architect-photographer is that of maintaining the vertical lines of the subject to appear vertical and parallel on the picture. The reason for converging lines is simply that the plane of the subject and that of the film or plate are not parallel. In architectural details, as "shooting" up at the soffit of a cornice or the pediment of a doorway or, worse still, a Babylonian setback fourteen floors up, it would be necessary to have either a high tripod mounted on a platform or a "swing-back" camera in order to retain the film or plate in a vertical position. Incidentally, the ideal camera for architectural purposes is of the "swing-back" species, which permits the front of the camera containing the lens and bellows to be tilted at a steep upward angle, while the rear of the camera containing the film or plate remains vertical. However, the nomadic architect equipped with a folding camera is able to approximate the advantages of more elaborate equipment by holding the camera upside down over his head as shown in Figure 1. For the first few trials it may be that the subject will prove elusive, but after a little practice of a few moments it will be found as easy to locate a subject with the camera over one's head as held on the chest.

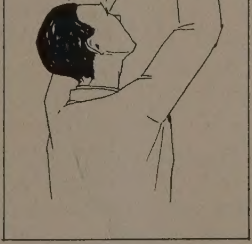


Figure 1

The advantages of the overhead position of the camera are several. In crowded streets the pedestrians and traffic often eliminate all possibility of a successful view of a building across the street; in fact, no matter how tall one might be with the camera resting on the upper reaches of his chest he would not even be able to clear parked automobiles. All of Europe seems possessed with the ambition of having its picture taken, so much so that often the architect has difficulty in eliminating enough "local color" to leave some film space for straight architecture. A six-foot person holding a camera aloft at arm's length can gain a height of over seven feet for the lens of the camera—considerably in excess of the highest tripod made and certainly much more feasible.

The precaution which should be observed in this inverted position is that the subject as viewed in the finder of the camera should show that the camera is being held quite vertically without tipping from left to right or from front to back. The first attempts should be made against a vertical wall or similar guide, but after a little practice it becomes a normal manner of taking pictures.

A frequent cause of diagonal streaks of light across a plate which have come from an unknown source is that a wayward ray strikes the black but shiny rim of the lens and zigzags a course through the bellows until it records itself on the film. To obviate this and increase the sharpness of pictures, as well as to be able to "shoot" almost into the sun, is a matter of fitting a shield over the lens. Shields may be purchased, but an excellent one can be made from the ordinary pill-box (Figure 2a). A circular pill-box should be obtained whose diameter is from one and a half to two times that of the outer projecting rim of the lens. After the pill-box cover has been glued on, the box may be cut in half or thereabouts half-way up

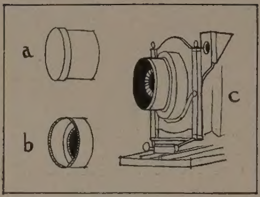


Figure 2

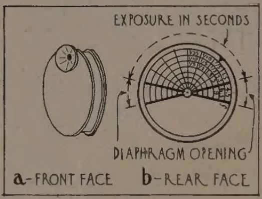


Figure 3

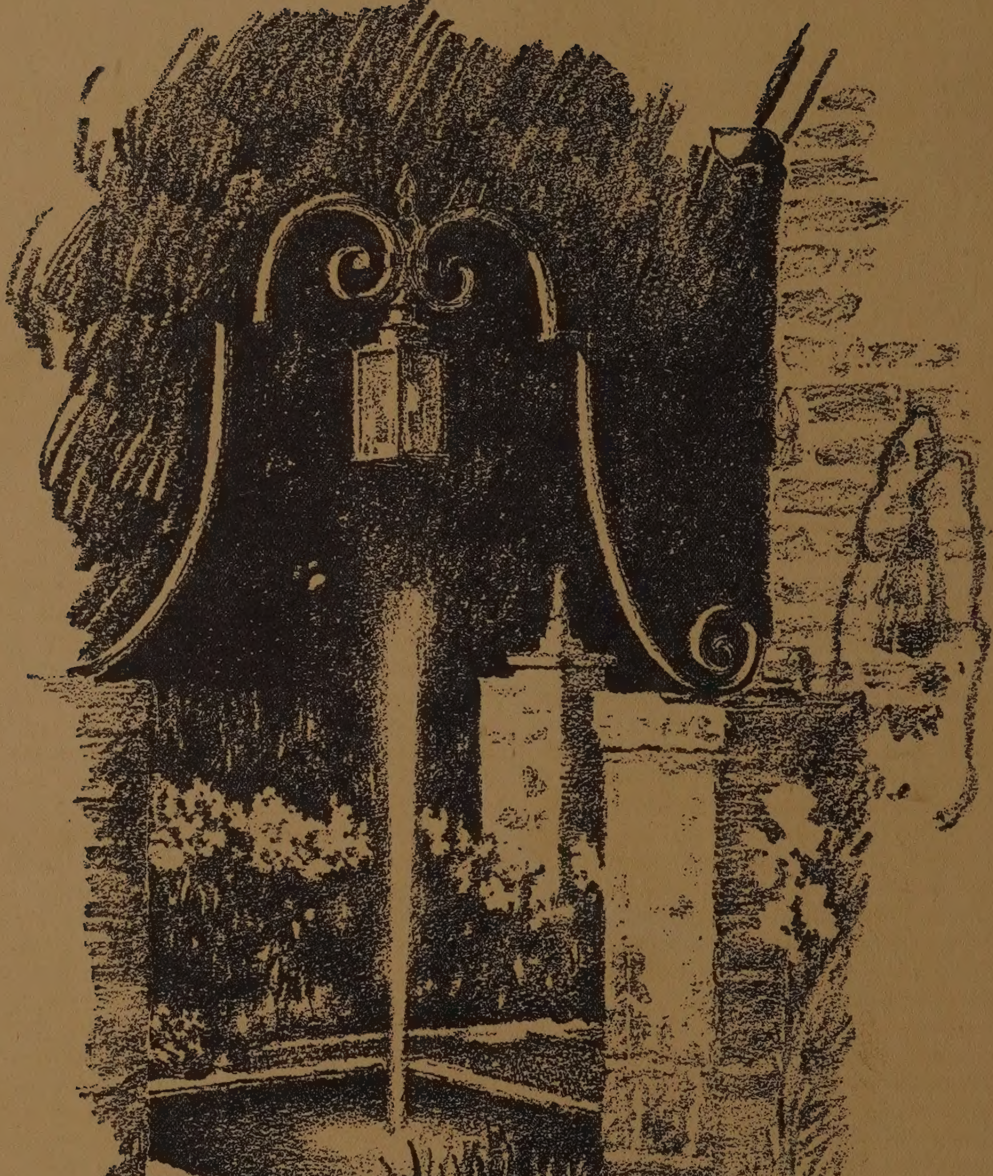
the side (Figure 2b). A circular piece should then be cut out from the bottom of the half box so that it will just slip over the rim of the lens. Since most pill-boxes are made of paper it is advisable to bind all the cut edges with tape, either of the adhesive variety or by stitching. The inside of the shield thus formed should be given a coat of black ink or paint. The lenses of some cameras do not project sufficiently far to afford easily a means of fitting the shield, in which case it becomes an exercise of using tweezers, wire, or flat metal ribbon, and some ingenuity. It will be a matter of a little experimentation to determine how much the shield may project without interfering with taking rectangular pictures. If the sides of the shield project too far the corners of all prints will appear black. The greater the projection the better the picture (up to certain limits), and while no definite rule can be laid down, for the camera taking a 3 x 4-inch or post-card-size picture the shield sides could be experimented with at a height of 1 inch and reduced if necessary.

While discussing the shield accessory to the lens it is in order to suggest the addition of another adjunct—the color filter. For the week-end tourist taking pictures as proof of having been certain places, the color filter is useless for the type of picture wanted, but for the architect taking pictures in full sunlight, particularly in the brilliant Mediterranean ones, it is almost an essential. Without the color filter shadows print a sooty black, while sunny parts come out devoid of much detail. The relation of colors will be more nearly maintained if a color filter be used—otherwise reds, yellows, and greens have a black tendency, while blue does not register at all, which means an absence of any sky tone. A good filter is a "three times" one, *i. e.*, one requiring three times the length of exposure without a filter.

Probably the principal reason for unsuccessful pictures is incorrect exposure. To remedy guess work there have always been tables and pinwheel devices on the market, but they are usually adapted only to outside subjects and depend for their success upon judgment of too nice a nature. Frequently they are so complicated that only an instructor in integration is able to follow through all the gyrations without ever making an error. There are several direct-vision meters for ascertaining the strength of light upon any subject that one can see. One of these is "Heyde's Aktino Photo Meter" (Figure 3), which represents an investment of several dollars but saves its cost within a short time because of the infallibility of its results. It consists merely of two discs which turn in opposite directions, and is provided with a small aperture through which one peers through a piece of blue glass (Figure 3a). The latter is of increasing thickness so that as one disc is turned the object viewed becomes decreasingly distinct. When the detail of the subject to be taken is almost obscured, the meter is turned over (Figure 3b), where a scale for exposure and aperture can be read off directly. An indicator at the top points to the column of exposures and their corresponding diaphragm openings which will give the desired results. In Figure 3b the arrow shows that $\frac{1}{5}$ second may be used with shutter opening of 4.5, or ½ second with 6.3 opening, etc. The decided advantage of this device is that it can be used in all sorts of weather, inside or out, and can be read in a twinkling without any special engineering training. The only experimentation comes in the matter of determining to what extent detail should disappear before deciding to use the scale indicated. It would be good practice if at the beginning the same subject were to be photographed with three different exposures of three adjacent columns. It actually is a matter of only a few trials before absolute reliance can be placed on one's judgment.

The use of a camera permitting of accurate focussing upon the glass and the establishment of exactly the composition desired will make a hundred-per-cent improvement in architectural photography. This, of course, makes the tripod a necessity. It is well to rule a few vertical and horizontal lines on the ground glass so that when viewing any subject it will be readily possible to determine whether or not the vertical lines are being kept vertical.

The architect will find it an advantage to keep some form of simple record-book, both for recording particularly successful exposures to which he can refer for aid when taking similar ones, and for numbering his negatives so that he can find them at a moment's notice.



Garden Entrance, House of Marion and Pope Barney, Rose Valley, Pa.
From the drawing by Eric Thompson